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Through teacher research, educators engage in ways of evaluating and changing their practices. Such inquiry allows teachers an opportunity to make their knowledge about learning visible to themselves and others. Unlike the knowledge generated by “outside” researchers, the knowledge generated by teacher researchers often takes the form of altered practices and/or re-envisioned curricula with the intent of use within the local context in which it is developed. In this study, an inquiry as stance framework is used to illustrate how teaching is a habit of mind or worldview rather than a set of formal strategies or specific competence skills. Given the abstract nature of stance (e.g., worldview), however, there is a need for further focus on the development of practices and perspectives which might lead to an inquiry stance and how and if that inquiry stance impacts instruction, specifically in the field of literacy. This qualitative case study does just that by examining how elementary teachers constructed and enacted an inquiry stance and how those stances shaped literacy instruction.

This study occurred in two phases. In phase one, interviews, observations, and artifacts were used to understand how teachers constructed and enacted an inquiry stance within the context of the graduate class and how that stance shaped their classroom literacy practices. Phase two of the study, using the same methodology, followed one teacher the next year into her first-grade classroom to better understand how and if an inquiry stance continues and what impact that stance had on her literacy instruction.

Findings suggest that although teachers enact their inquiry stances differently, these stances have short- and long-term effects on teachers' literacy instruction.

*Keywords:* Teacher Research, Inquiry Stance, literacy practices, teacher education

UNDERSTANDING TEACHERS' INQUIRIES AND CLASSROOM  
LITERACY PRACTICES

by

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For Eric, Gavin and Emma.

You remind me each day what is really important in life.

## APPROVAL PAGE

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## **CHAPTER I**

### **INTRODUCTION**

I thought researchers were not really in the classroom—they were people who liked to write papers and do statistics. But my thoughts of research changed to something necessary, because all teachers should be researching. We constantly can improve our practice. Research went from being something that I didn't want to do; to being something I should have been doing the all these years. ~ Jane

This dissertation shares the stories of elementary teachers conducting research in their classrooms. One of those teachers was Jane, whose comment above from an interview highlights her thoughts concerning teacher research in her K–1 classroom. For Jane, teacher research redefined for her what it meant to be a literacy teacher. As stated, she came to the understanding that research is part of being the type of teacher she wanted to be—a problem solver. As the participants in my study: Jane, Kate, Liza, Tiffany, and Donna learned about teacher research in the yearlong teacher research class, their thoughts about research began shifting from seeing research as checking things off a “to do list”—to a way of thinking or habit of mind. For example, teachers applied the problem solving nature of research to other aspects of their teaching beyond the scope of the class project to illustrate that habit of mind. As one of their instructors, I wondered about that shift in thinking during the class and also about what happens next, after graduate school, once the projects were complete and the chapters read. Would they continue to do teacher research and what would that look like? If they engaged in research, how would it shape their literacy instruction?

I have been searching for the answers to these kinds of questions since my own experience as a teacher researcher. Like the teachers in this study, I was introduced to teacher research through a Teacher as Researcher/Leader course, a requirement for graduation from a Master's program. As a former elementary teacher, I saw firsthand the impact of teacher research on my literacy instruction. While enrolled in the course, I chose to investigate writing conferences by examining the discourses between my first-grade students and myself during conferences. This research challenged me to critically reflect on how my conferencing strategies impacted students' writing development. As a result, my findings changed how I understood writing conferences and how I approached conferencing with students the following year. In another study, while teaching sixth grade, I looked at the effect of students' blogging as a form of reader response. Sharing my findings with colleagues provided opportunities for conversations with other educators about new literacy practices. Engaging in this teacher research project furthered my understanding of what a teacher could do in the classroom. Teacher research opened doors for me to take a leadership role in my school, leading me to present at local and national conferences and eventually brought me back to the university to begin my Ph.D.

I share these experiences to illustrate how, for me, teacher research became a new way of thinking about my own teaching and learning. It changed my everyday approaches to teaching by allowing me to situate myself as a professional, impacting learning in my classroom, and shaping curriculum and teaching practices at my school. This new way of thinking about teaching helped me to persevere as a teacher in a school

with traditional values that did not always align with my personal beliefs about teaching and learning. This is the reason that I am an advocate for engaging educators in teacher research that moves beyond a classroom project and towards a habit of mind, or what I refer to as an inquiry stance (Cochran-Smith & Lytle, 2009).

Most of the graduate students in the teacher researcher course valued the research they completed (as indicated in written feedback), and it appeared as if they were beginning to construct and enact an inquiry stance, however not everyone continued with their classroom research the following year. I wondered why. This study provided an opportunity to understand (a) how five teachers adopted an inquiry stance and how that stance shaped literacy instruction; and (b) how that stance developed throughout the following year in one teacher's classroom and the continued impact of inquiry on literacy instruction.

### **Statement of the Problem**

Schools have been criticized for not teaching students the skills they need to be successful in future careers (Apple, 2006). To address this issue, policy in the mid to late 1990s was focused on teacher quality. Legislation such as No Child Left Behind created the expectation that if teachers were highly qualified, they could fix everything that is wrong with schools (Cochran-Smith & Lytle, 2009). Such policy defined qualified teachers as subject-matter experts who used high-stakes standardized exams to evaluate the effectiveness of their teaching. Unfortunately, the pedagogical knowledge and understanding that teachers gained from their teaching experiences and relationships with students was pushed to the side (Popkewitz, 1994).

Today's educators continue to face many of the same policy constraints. Due to abundant assessments, teachers continue to be positioned as recipients of other's knowledge, not creators of their own understandings. In addition, the focus on standards and accountability "de-emphasize local contexts, local knowledge and the role of teachers as decision makers" (Cochran-Smith & Lytle, 2009, p. 6). Thus, often teachers are viewed as faithful implementers of curriculum. Specifically, Crocco and Costigan (2007) argue that the impact of mandated, prescribed curriculum that "frequently limits pedagogical options" (p. 514) is that teachers "often find their personal and professional identity development thwarted, creativity and autonomy undermined, and ability to forge relationships with students diminished" (p. 514). Furthermore, instructional approaches and professional development that support reading and writing instruction (Pease-Alvarez & Davies-Samway, 2008) and learning in U.S. schools have narrowed, resulting in teachers being trained to use scripted programs rather than receiving professional development on best practices (Achinstein & Ogawa, 2006; Allington, 2001; MacGillivray, Ardell, Curwen, & Palma, 2004).

The pressure that some teachers feel as a result of the demands and constraints of local, state, and federal policies can at times be suffocating, even for experienced teachers. Specifically, due to the nation's focus on high-stakes testing, teachers have fewer opportunities to be professionals by sharing their expertise and knowledge of teaching and learning (Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). For example, at Liza's school, asking questions and being uncertain about her practice was not



encouraged; neither was implementing innovative strategies that pushed against standardized curriculum to meet the needs of individual students.

Despite the current trend to de-professionalize teachers (Priestley, Biesta, & Robinson, 2013), I argue that teachers need more support and opportunities to be professionals and experts in their field. In particular, I believe that teachers who engage in the work of teacher research can further their professionalism and contribute to their field. They can do so by generating knowledge of teaching and learning based on their own research and negotiate how to best utilize the knowledge of others in their own classrooms (Cochran-Smith & Lytle, 2009). For example, teachers may have to negotiate how to incorporate scripted literacy programs along with their own understanding of their students' needs. One way for teachers to find a balance between these sources of knowledge and accomplishing the above goals is through teacher research.

### **Teacher Research**

The term teacher research is grounded in the work of Nolen and Putten (2007), who define teacher research as “a practical yet systematic research method that enables teachers to investigate their own teaching and their students' learning” (p. 401). This process, however, is not always linear and instead follows a continuous spiral of “plan, act-observe-and reflect” (Kemmis & McTaggart, 1990; Zeichner & Noffke, 2001) with teachers beginning at different points in the process depending on the focus of their research. Such a process involves generating questions, collecting and analyzing data systematically, consulting professional literature, using evidence-based conclusions to guide one's practice, and sharing knowledge with others. This kind of research is unique

to other educational research because of its “insider” perspective that focuses on classroom practice.

Universities across the country are offering teacher research classes at the undergraduate and graduate levels to assist teachers in developing their knowledge about research (Turner, 2010). This shift occurred at the university level because classroom research has recently moved to the forefront of potential strategies for school improvement (Savoie-Zajc & Deschamps-Bednarz, 2007). One way teacher research can improve schools is by facilitating learning for teachers in general that affects literacy learning for students in particular (Massey & Duffy, 2004). Teacher research can also support educators in developing a disposition towards reflective, inquiry based, and analytic thinking (Darling-Hammond & Bransford, 2005), along with fostering the skills of data collection, observation, analysis, and reflection. By allowing teachers to focus on student learning, teacher research encourages educators to critically examine their own teaching practice in relation to their beliefs about teaching (Vetter, Myers, & Hester, 2014). Additionally, teacher research provides an opportunity for educators to investigate and revise their pedagogical practices (Darling-Hammond & Bransford, 2005).

In the field of literacy, educators have used teacher research to examine their literacy instruction (Lytle, 2000). For example, teachers have examined specific aspects of literacy instruction such as writer’s workshops or what literacy strategies work best for English Language Learners (Gallucci, 2012; Vetter et al., 2014). Teacher research is important in the field of literacy because it offers a different perspective on literacy teaching and literacy learning (Massey & Duffy, 2004).

## **Inquiry as a Stance**

One benefit of engaging in teacher research is the opportunity to acquire an “inquiry stance” toward teaching. Cochran-Smith and Lytle (2009) describe an inquiry stance as a “world view, a habit of mind, a fluid way of knowing and being in the world of education” (p. 25). When teachers take on an inquiry stance, they see research as more than a process; it is part of how they think and behave as teachers. Thus, an inquiry stance highlights the link between knowledge and practice by viewing teaching and teacher learning as a process of forming and reforming “frameworks for understanding” praxis (Cochran-Smith & Lytle, 1999, p. 20). Taking on an inquiry stance can help teachers navigate the larger educational reform climate where research-based recommendations and “solutions” are thrown at educators who have not yet begun to think about the questions that matter most to them (Vetter et al., 2014). Teachers who adopt an inquiry stance engage in ways of evaluating and changing their practices and may choose to make their knowledge about learning visible to others. Unlike the knowledge generated by “outside” researchers, the knowledge generated by teacher researchers often takes the form of altered practices and/or re-envisioned curricula with the intent of using them within the local context in which it is developed.

An inquiry stance, which will be described in more detail in Chapter II, is important because it focuses on teachers as experts and problem solvers who can navigate mandates and standardization of the curriculum. This is particularly relevant to elementary teachers who must negotiate the demands of scripted literacy instruction with their teaching ideologies (Fang, Fu, & Lamme, 2004). In addition, an inquiry stance

illuminates the complexities of teaching and provides teachers a way of dealing with the challenges that arise each year in classrooms across the country. With that said, I argue that it is important to understand how to support teachers in developing an inquiry stance rather than merely completing a classroom research project in a course. However, little is known about how teachers construct and enact an inquiry stance—moving beyond thinking of research as a series of steps to that of a habit of mind—and what, if any, impact this type of stance has on their literacy instruction.

### **Literacy Instruction**

For this study, I focused on literacy because as a teacher educator and researcher dedicated to literacy education, I am interested in learning more about how teacher research shapes literacy instruction and learning. There is no shortage of literature regarding what characteristics make for an exemplary or effective literacy teacher (Block, Oakar, & Hurt, 2002; Brooks, 2007; Harris, 1998; Ruddell, 1995). Studies have focused on teacher philosophies, classroom management styles, specific teaching behaviors, and the ways teachers convey content to students (Allington, 2013; Taylor, 2007). Schools themselves play a role in how well teachers are able to implement effective principles and practices (Taylor, Pearson, Clark, & Walpole, 1999).

The lens of teacher research provides another way to consider what effective literacy teaching looks like that can take into account the school context and individual students. Such research has been shared in published articles and/or conference presentations. For example, Stout (2009) detailed her journey to implement literacy centers in her first-grade classroom, wondering if they would improve her students'

reading performance. During this six-week study, she saw her students increase an average of four reading levels and she better understood her students' learning.

In another study by Cordova and Matthiesen (2010), a second-grade teacher, Amanda, desired to see how an English Language Arts and Social Studies interdisciplinary unit on communities (encompassing Native Americans and the urban students in her classroom) would impact their concepts of culture and community. Her teacher research encouraged the extension of this project over several months because the data suggested that her students were not only engaged, but that the project “built bridges between the mandated curriculum and their lived experiences making way for a hybridized expanded living curriculum” (Cordova & Matthiesen, 2010, p. 461).

In addition, scholars have examined teacher research projects focused on literacy in graduate classes (see for example Massey & Duffy, 2004) and pre-service teacher education programs (see for example Price & Valli, 2005; Valli, 2000), as well as Professional Learning Communities (PLCs; see for example Altrichter, 2005). However, most of these studies examined teachers only while they were enrolled in the course, or described checking in on teachers one year after they completed the course. There is little research investigating the effects of taking a teacher research course on any subsequent teaching practices in any subject area, including literacy (Massey & Duffy, 2004). The studies that do exist focus on a single educational context such as pre-service and/or graduate programs (Borg, 2009; Massey et al., 2009). Educators would benefit from scholarship that examines how teacher research shapes literacy instruction because

viewing teaching through the lens of teacher research may facilitate a more systematic approach to effective literacy teaching.

Teacher research has the potential to open opportunities for teachers to construct and enact inquiry stances that transform attitudes and outlooks about teaching. Specifically, teacher research challenges teachers to practice habits of mind that include posing questions, reconsidering previous knowledge and beliefs, and examining both qualitative and quantitative data to inform decisions about instruction. Research that investigates the ways in which inquiry stances shape instruction could provide insight into how teachers learn. In addition, teacher educators would benefit from learning more about how to foster inquiry stances in their courses. Furthermore, teacher research provides a strategy for exploring the potential benefits of incorporating inquiry into literacy instruction and teacher educators may reconsider how they teach teacher research so that it becomes a systematic approach to effective teaching, embedded throughout teacher education programs, rather than introduced solely as a class project.

Thus, research is needed that (a) seeks to understand how teachers construct and enact an inquiry stance and what encourages the development of such a stance; and (b) further investigates the impact of an inquiry stance on literacy instruction in particular. This study addresses these research problems as well as provides critical information to teacher educators who teach research classes to current and future teachers. This study also contributes to the conversation connecting teacher research and teacher professionalism.

### **Purpose of the Research**

The purpose of this study is to understand how teachers construct and enact an inquiry stance and how an inquiry stance shaped their literacy instruction. This study occurred in two phases. In phase one, I followed Jane, Kate, Tiffany, Donna, and Liza throughout a yearlong Teacher as Researcher/Leader graduate course. These teachers were chosen because of their interest in completing teacher research on their literacy instruction in an elementary classroom. This focus helped me understand how teachers develop and begin to construct and enact an inquiry stance while in graduate school. In phase two I followed Liza, the only teacher out of the five who decided to do teacher research on her own. Specifically, I was guided by the following research questions:

Phase One:

- ❖ In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research?
- ❖ How does an inquiry stance shape their literacy instruction?

Phase Two:

- ❖ In what ways does a teacher construct and enact an inquiry stance within the context of her elementary classroom?
- ❖ How does an inquiry stance shape her literacy instruction?

### **Overview of the Dissertation**

Prior to conducting teacher research, as she shared in the quote at the beginning of this chapter, Jane did not think that researchers were in the classroom. The goal of this study was to understand how teachers, within the context of a graduate class and then on

their own, construct and enact an inquiry stance and in what ways this stance shaped their literacy instruction. I begin in Chapter II by providing a framework for this study by reviewing relevant theories and the literature related to inquiry stances, teacher research, and literacy. In Chapter II, I also expand on what an inquiry stance could look like in practice (involving the constructs of reflection, pedagogical content knowledge, and agency) since little is discussed in the literature.

In Chapter III, I share the methodology for this study, which is case study, and why it is the best fit for my research. Next, I highlight the site and participants, which is followed by a description of the data collection and analysis techniques. Finally, I end Chapter III by addressing the trustworthiness of the study, ethical issues, strengths, and limitations of the study.

The fourth chapter highlights the findings from phase one of the study, which sought to understand: In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research? How does an inquiry stance shape their literacy instruction? The purpose of this chapter is to provide thick description of the ways the teachers in the graduate class began to develop an inquiry stance and how that shaped their literacy instruction. I begin by describing each teacher's research focus and how their inquiry stances were portrayed through the constructs of reflection, pedagogical content knowledge, and agency. I created a chart to highlight quotes from each teacher regarding the impact of their research on their literacy practices. I used the teachers' own words to show the link between their inquiry stance and changes in their instruction to show that every teacher felt that inquiry strengthened their understanding of their literacy



practices. Then I discuss how constructs of an inquiry stance (reflection, pedagogical content knowledge, and agency) shaped these shifts in their practice.

In Chapter V, I focus on Liza and share the findings from phase two of this study which addressed the following research questions: In what ways does a teacher construct and enact an inquiry stance within the context of her elementary classroom? How does an inquiry stance shape her literacy instruction? First I paint a visual picture of Liza's school and classroom to help the reader understand her particular context. Then, using the constructs of reflection, pedagogical content knowledge, and agency, I highlight how Liza constructed and enacted an inquiry stance while researching on her own and how that stance shaped her literacy instruction.

Chapter VI summarizes the findings of the study. I specifically address how contributing to the conceptual framework of an inquiry stance helped me better understand how teachers construct and enact an inquiry stance within a graduate class and an elementary classroom. Then I discuss the theoretical implications of this framework. I argue that the reoccurring theme of teacher research shaping literacy instruction through teachers' reflection, pedagogical content knowledge, and acts of agency suggests that the lens of inquiry stance, through teacher research, provides another way to consider what effective literacy teaching looks like. Implications for teacher education programs, schools and administrators, and researchers are also discussed.

## **CHAPTER II**

### **THEORETICAL PERSPECTIVES AND RELATED LITERATURE**

When I started this research, I thought it would be like checking things off a list. First you plan, then you do the research, then you analyze the results and so on. But now looking back, I realize that it is more. It becomes part of who you are.  
~ Samantha

In this chapter I review the theories and research that framed my study. First, I synthesize the relevant literature on an inquiry stance, share how scholars define an inquiry stance, and specify how and why this concept is relevant to my research. Second, I describe why an inquiry stance as a construct is worthy, timely and significant to the field of educational research and how it connects to teacher research. Finally, I explore the advantages and limitations of teacher research, the potential of teacher research to specifically support and impact literacy instruction, and how this framework guided my research.

#### **Inquiry as a Stance**

The above quote highlights Samantha's (a pseudonym) thoughts about teacher research during the Teacher as Researcher/Leader graduate class. Although not realizing it, she described what is at the heart of an inquiry stance (i.e., "It becomes who you are."). This study sought to understand how teachers like Samantha moved beyond seeing and conducting classroom research as part of a graduate class requirement, to seeing it as a habit of mind, a way of being. The value of an inquiry stance is that it is a way of

approaching teaching and learning that positions the teacher as in control of his or her own learning and professional development (Cochran-Smith & Lytle, 2009). Educators who create their own definition of what it means to be a teacher view the profession as a problem solving inquiry process in which teachers practice agency to find answers to questions that matter most to them and their students (Alsop, Dippo, & Zandvliet, 2007; Cochran-Smith & Lytle, 2009).

Thus, an inquiry stance opens opportunities for educators to transform their teaching by making decisions about particular aspects of their teaching practice they want to learn more about or improve (Cochran-Smith & Lytle, 2009). When teachers conduct research in their classrooms, some begin to take on many of the characteristics and behaviors of an inquiry stance (Nolan & Hoover, 2004). However, given the abstract nature of a *stance* there is a need for further focus on what an inquiry stance looks like, how it is enacted, what impact such a stance has on teachers' literacy instruction as well as how teacher educators might foster opportunities for teachers to engage in an inquiry stance (Donnelly, Morgan, & Deford, 2005; Massey & Duffy, 2004). There is also a need to explore the kind of support teachers need in developing such a stance (Nolan & Hoover, 2004). This may be particularly true in the area of literacy because teachers, who use a variety of teaching methodologies to teach skills of reading, writing, listening, and speaking, may feel overwhelmed by the idea of researching their practice (Nolan & Hoover, 2004).

These unresolved issues and questions serve as the focus for the present study on teacher research. My research continues the work I have done in this field that includes

co-founding a group to support teachers doing classroom research. I noticed that over time, teachers experienced a shift in their habit of mind; they began thinking about teaching differently because of engaging in teacher research. This change, I learned, scholars called an inquiry stance (Cochran-Smith & Lytle, 2009). I needed to gain more understanding of this stance. Thus, my dissertation study sought to understand how teachers, within the context of a graduate class and after, constructed and enacted an inquiry stance and how that stance shaped literacy instruction.

### **A Definition**

For this study, I draw from Cochran-Smith and Lytle's (2009) definition of inquiry stance which is described as a "world view, a habit of mind, a fluid way of knowing and being in the world of education" (p. 25). The word *stance* is commonly used to describe body postures and/or political positions (Cochran-Smith & Lytle, 2001). For this work, stance is used to "describe the positions teachers and others who work together in inquiry communities take toward knowledge and its relationships to practice" (Cochran-Smith & Lytle, 1999, p. 16). Thus, *stance* highlights how inquiry is a disposition or mode of being rather than a time-bounded project (Zuidema, 2012). For example, inquiry as a process typically involves asking questions, collecting data, analyzing data, taking action, and reflecting on practice (Nelson, Slavit, & Deuel, 2012). For some teachers, the process continues with a new question and they repeat the cycle of inquiry (Cochran-Smith & Lytle, 2009).

Inquiry as a stance, however, goes beyond inquiry as a process because research is not seen as something extra that teachers do; it becomes part of their daily practices

(Cochran-Smith & Lytle, 2009). In other words, when teachers take on an inquiry stance it becomes part of how they think, who they are, and what it means to be a teacher (Cochran-Smith & Lytle, 2009). This kind of stance involves thinking differently about what teachers do and why they do it, in order to positively impact the lives of the students in their classrooms.

According to Cochran-Smith and Lytle (2009), an inquiry stance framework has also been used to change traditional ways of conceptualizing teaching and teacher development. In other words, such a framework views teaching and learning as an ongoing process that involves working in inquiry communities to construct and negotiate knowledge, analyze and question theory and educational research, and theorize practice. Through an inquiry stance, teachers problematize “current arrangements of schooling; the ways knowledge is constructed, evaluated, and used; and teachers’ individual and collective roles in bringing about change” (Cochran-Smith & Lytle, 1999, p. 289). An inquiry stance, then, situates teachers as both users and creators of knowledge.

Because of the abstract nature of this framework, understanding and identifying when teachers take an inquiry stance is complex. To help with this, Cochran-Smith and Lytle (2009) provided the following four dimensions of inquiry stance:

1. “a *perspective* on knowledge that . . . puts forward a concentration of local knowledge in global contexts”;
2. “an *expanded* view of practice as the interplay of teaching, learning, and leading”;

3. “an *understanding* of practitioner communities as the primary medium or mechanism for enacting inquiry as stance as a theory of action”; and
4. “the *position* that the overarching purpose of practitioner inquiry is to provide education for a more just and democratic society.” (pp. 126–127, italics added)

The four dimensions of inquiry stance, as showcased above, are essential to understanding what can happen when teachers engage in research. First, an inquiry stance values what teachers learn in their specific classroom and how that understanding may connect to other contexts. Second, when educators take on an inquiry stance, they view their practice not just as the act of teaching but also as interplay between teaching, learning, and leading. Thus, the practice of instruction becomes more complicated and dynamic. Third, practitioner communities can be a huge support system for teachers who are researching in their classrooms. These communities can foster teachers to move beyond thinking of research as a project to thinking of it as a habit of mind. Fourth, teacher researchers often use their research as a catalyst to address issues of justice and equality, topics that are important in classrooms and schools across the county. Such an inquiry stance developed from teacher research may position teachers to better take action regarding these matters.

In summary, an inquiry stance is a way of thinking and approaching teaching, rather than simply completing the steps of an inquiry process with the goal of a final product (Cochran-Smith & Lytle, 2009; Nelson et al., 2012). Teachers who enact an inquiry stance take the initiative to develop opportunities that help them understand the

needs of their students (Cochran-Smith & Lytle, 2009). In the next section, I highlight three constructs of an inquiry stance: reflection, pedagogical content knowledge, and agency.

### **Conceptualizing an Inquiry Stance**

From the literature, I found the following three common characteristics that scholars used to describe an inquiry stance: reflection, pedagogical content knowledge, and agency (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004; Lieberman & Miller, 2001; Nolan & Hoover, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey, Jacobs, Gregory, & League, 2008). This framework (see Figure 1), drawn from the literature on inquiry stance, assisted in my understanding of how teachers constructed and enacted an inquiry stance within a university and classroom context and how that stance shaped literacy instruction (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004; Lieberman & Miller, 2001; Nolan & Hoover, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008).

In other words, teachers who approached teaching literacy with an inquiry stance systematically reflected on their practices, added to their pedagogical content knowledge, and demonstrated a sense of agency. Figure 1 illustrates the three constructs of an inquiry stance and represents how those constructs support an inquiry stance. Next, I discuss the literature on inquiry stance and the constructs of reflection, pedagogical content knowledge, and agency.

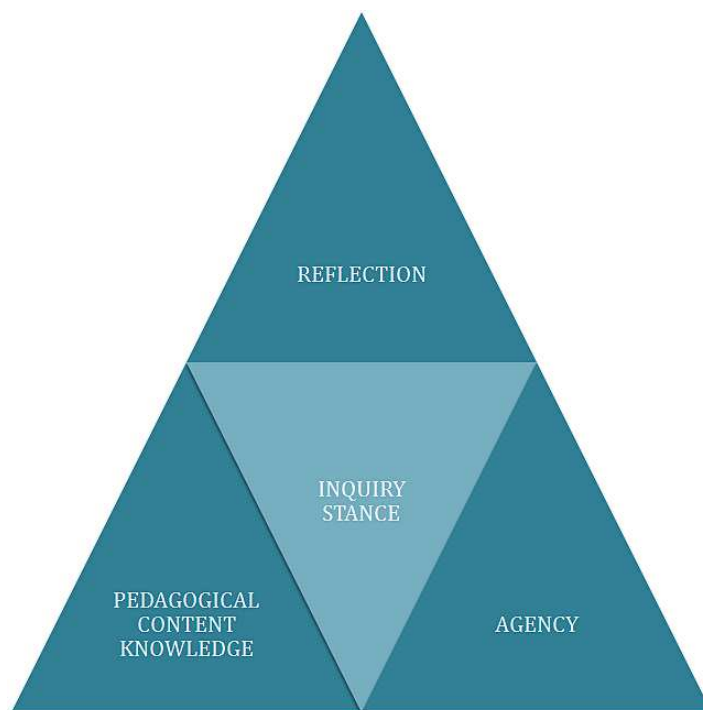


Figure 1. An Inquiry Stance.

### **Inquiry Stance and Reflection**

To describe an inquiry stance, scholars often discuss the significance of teacher reflection (Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004; Nolan & Hoover, 2004; Olson, 2000). To define reflection, most of the research draws from Schön's (1983, 1987) work, which sees reflection as the ability of teachers to think about what they are doing, while they are doing it (in action), as well as reflecting afterwards (on action) (Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004). Specifically, reflection contributes to an inquiry stance in three ways: (a) impact on student learning; (b) teachers becoming problem solvers; and (c) assisting teachers joining theoretical knowledge with practical understanding (Cochran-Smith & Lytle, 2009; Nolan & Hoover, 2004).



Reflection is central to inquiry stance because growing evidence shows that teachers' abilities to reflect on their instructional practice affect students' learning (Cochran-Smith & Lytle, 2009; Darling-Hammond, 2006; Wong, 1995). This may be because engaging in research encourages teachers to slow down and closely examine their practice. When teachers spend time thinking about their actions and how those actions influence their teaching and their students, they engage in professional learning (Hong & Lawrence, 2011; Smith & Sela, 2005). For instance, when researchers examined 18 in-service teachers' final reports, reflections, and coursework from a graduate class that utilized teacher research, they discovered that all teachers involved in the study believed that teacher research fostered reflective decision-making skills. Teacher research directly impacted their ability to critically reflect, thus shaping their professional learning (Hong & Lawrence, 2011). Although this learning may be specific to the context of their classroom, it is often supported by reflection in and on practice (Schön, 1987). Reflection also helps teachers become comfortable with the continual posing of questions about their teaching and its impact on learners (Lytle & Cochran-Smith, 1992). This continued questioning involves a conceptual shift in what it means to be a teacher.

Reflection is also a component of an inquiry stance because it assists teachers in becoming problem solvers, leading to new insights for practice (Marcos, Miguel, & Tillema, 2009; Olson, 2000). Reflection fosters problem solving by engaging teachers in thinking about teaching and learning (Dewey, 1938). In particular, teacher research expects educators to solve problems and reflection aids in this problem solving (Alsop et

al., 2007). Nolan and Hoover (2004) suggested that teacher researchers are active in the ways they ask themselves questions. Reflection fosters that activity because it involves pausing to ponder and unpack teachers' understandings of who they are in research and in practice (Hong & Lawrence, 2011; Reason & Reason, 2007). For example, teacher researchers may reflect on how their biases shape their understanding of students, resulting in a heightened level of awareness. This reflection could lead to teachers rethinking other aspects of their research and instruction. Reflective teachers are also open to questions from others about their teaching practices and view questions from their colleagues, administration, and parents as opportunities to learn and share information (Nolan & Hoover, 2004).

Reflection is embedded within an inquiry stance because it allows teachers to combine theoretical knowledge with their understandings of practice, which develops through lived experiences (Pilkington, 2009; Vogrinc & Zuljan, 2009). Scholars use Schön's (1987) work to discuss reflection and inquiry (Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004). As teachers engage in reflection, they merge the realities of teaching with strategies of good instruction. Reflection helps teachers support the needs of their ever-changing classrooms (Schön, 1987). For example, if a teacher sees that many of her students are entering kindergarten lacking the skills necessary to be successful, reflection might guide her to research the effectiveness of particular literacy strategies with these students. Reflection on inquiry privileges those experiences as sources of knowledge for teachers (Richter, 2012). This assists teachers in seamlessly joining theory and practice to meet the needs of their students.

Teacher researchers experience reflection in action and reflection on action while conducting their inquiries (Schön, 1987). This suggests that teacher researchers think about their instruction before, during, and after their teaching (Dana & Yendol-Silva, 2004). However, what distinguishes teacher research from simply teaching reflectively is the commitment to a disciplined method for gathering and analyzing data (Borko, Liston, & Whitcomb, 2007). This systematic approach to inquiry is essential if teachers want their research to inform their practice. Without a systematic approach, findings from their research may be less informative and unrepresentative of the issue of interest. When teachers plan to reflect as part of conducting research, they are able to generate a stronger understanding of their topic over time.

In conclusion, reflection is an important component of an inquiry stance because it impacts students' learning, leads to new insights as teachers work to solve problems, and assists teachers in joining theoretical knowledge with practical understanding. Reflection challenges teachers to question their stances in regards to teaching and learning and often leads to action (Cochran-Smith & Lytle, 2009). Such action can be transformative because teachers feel empowered when they recognize that they can create change based on their own systematic reflections of their research (Dana & Yendol-Silva, 2004).

### **Inquiry Stance and Pedagogical Content Knowledge**

Pedagogical content knowledge reflects Cochran-Smith and Lytle's (1999) notion of knowledge in and of practice, which teachers gain from inquiry (Yendol-Hoppey et al., 2008). Specifically, pedagogical content knowledge contributes to understanding inquiry

stance by the ways teachers understand content (the what of teaching), and the ways teachers understand pedagogy (the how of teaching). The literature related to pedagogical content knowledge and inquiry stance is less abundant, but it exists (Dana & Yendol-Silva, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008).

The concept of pedagogical content knowledge (Shulman, 1987) is used in the inquiry stance literature. Many scholars use Shulman's (1987) definition of pedagogical content knowledge in the inquiry stance literature. This construct allows for a highly flexible and adaptable understanding of teacher knowledge that recognizes the complexity of teaching (Van Driel & Berry, 2012).

Pedagogical content knowledge is a form of practical knowledge that teachers use to guide their actions in classrooms (Rowan et al., 2001). According to Shulman (1987), pedagogical content knowledge entails (a) knowledge of how to structure and represent academic content; (b) knowledge of common conceptions, misconceptions, and difficulties that students encounter when learning particular content; and (c) knowledge of specific teaching strategies that can be used to address students' learning needs. Pedagogical content knowledge builds on other forms of professional knowledge, and is a critical element in the knowledge base of teaching (Rowan et al., 2001).

An inquiry stance can assist teachers in better understanding the content they teach (Mishra & Koehler, 2006; Yendol-Hoppey et al., 2008). For example, a teacher might want to learn more about the impact of reading culturally relevant texts to her class. Inquiry is one way to build her pedagogical content knowledge about this topic. At the heart of pedagogical content knowledge is the notion that teachers can transform subject

matter to make it accessible to learners (Mishra & Koehler, 2006). Having a strong understanding of content makes that transformation possible. For instance, in a study about inquiry, a teacher identified writing as an area of weakness in her teaching (Yendol-Hoppey et al., 2008). In addition, her students said that they did not enjoy writing and this showed in their final products. The teacher took steps to first learn about and then implement a writer's workshop in her classroom in hopes of addressing this aspect of her teaching. She collected questionnaires regarding students' attitudes about writing, field notes about student engagement, and writing samples to assess performance. By the end of the year, students were complaining that writing time was over. Field notes and an increase in writing fluency, as evidenced by work samples, confirmed this positive attitude. By changing the way she taught writing, the teacher was able to offer students more choice versus the typical prompt writing she used before. Because the teacher was willing to problematize her teaching, she was able to explore an instructional innovation while engaging in systematic and intentional inquiry (Yendol-Hoppey et al., 2008). This example highlights how an inquiry stance can better assist educators in understanding the content they teach.

An inquiry stance can also assist teachers in better understanding pedagogy (Cochran-Smith & Lytle, 2009; Stern, 2014). For example, a teacher might inquire into specific instructional approaches or strategies to help facilitate student learning. Thus, teachers may build their pedagogical content knowledge while at the same time constructing their own understanding (Cochran-Smith & Lytle, 2009). Teachers with strong pedagogical content knowledge know the most powerful ways to represent subject

matter and what makes learning content easy or difficult for students (Carré & Ovens, 2006). For instance, over a five-year period, Stern (2014) examined six different graduate cohorts who conducted teacher research as part of their coursework. She found that when teachers asked themselves questions that did not have clear answers, it led to a stronger understanding of the complexities of their decisions as teachers. The author points out that pedagogy can be studied in graduate classes through reading texts, watching videos, and discussion, but when teachers engage in inquiry, they develop deeper pedagogical content knowledge. Teachers with an inquiry stance seek the best ways to support their students' learning. Having strong pedagogical content knowledge assists them in identifying how to move forward to address the problems they seek to solve (Stern, 2014; Yendol-Hoppey et al., 2008).

In conclusion, pedagogical content knowledge is also a component of an inquiry stance because content and pedagogy can be shaped through inquiry (Dana & Yendol-Silva, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008). Shulman's (1987) concept of pedagogical content knowledge is used to emphasize both the importance of teachers' knowledge of their subject area (i.e., what to teach) and teachers' knowledge of pedagogy (i.e., how to teach).

### **Inquiry Stance and Agency**

The literature linking agency and inquiry stance reveals how inquiry shapes teachers' agency (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Lieberman & Miller, 2001). Teachers' inquiries are often "grounded in the problems and contexts of the practice and the best interests of (teachers') students" (Cochran-Smith & Lytle, 2009, p.

123). This suggests that teachers enact agency because they want to make changes. This first becomes part of teachers' practice and eventually it can become part of the culture of the school (Dana & Yendol-Silva, 2004).

As teachers engage in classroom research, they question not only their practices, but also the role they play in educational change, which relates to their sense of agency. Agency is not a fixed quality or disposition (Okita & Schwartz, 2013). Rather, it is something that people do in social practice. For this study, I define agency as "the socioculturally mediated capacity to act" (Ahearn, 2001, p. 112). This definition conceptualizes agency as an ongoing process that is contextually and historically situated, occasional, multifaceted, relational, and transitory (Edwards, 2007). To further understand how agency within an inquiry stance is enacted, I examined Lytle's (2000) review of teacher research literature. She found that individual teacher research initiatives fell under three types of change: (a) individual; (b) institutional; and (c) societal.

According to Lytle (2000), individual kinds of change often occur because teachers want to bring about a more complex view of daily practice. For example, when teachers engage in inquiry, they have an opportunity to make changes to their practice by choosing topics to research that are meaningful to them (Hubbard & Power, 1999). In this way, teachers take control versus having someone else tell them how to improve their teaching. In addition, teachers who engage in research can feel empowered pedagogically, cognitively, and politically (Brown & Renshaw, 2006; Greeno, 2006; Steinberg & Kincheloe, 1998). Engaging in inquiry also involves change and risk taking

and does not always yield success (Bauman & Duffy-Hester, 2000). For example, when Phinney and Ketterling (1997) investigated dialogue journals in Ketterling's classroom, they found that some aspects of these journals worked for students, but others did not. This led them to realize that "teaching and learning are imperfect activities" (p. 40). Yet, without the inquiry experience, they may not have had the opportunity to come to this realization.

Agency can also take the form of institutional change (Lytle, 2000). For example, teachers can and have used findings from their research to change school policy. For instance, Vetter et al. (2014) described an English/Language Arts high school teacher's struggle to implement writer's workshop in her classroom as opposed to the writing "blitz" program favored at her school. Madison, a third-year teacher at the time, used data gathered during a teacher research inquiry to convince her principal that writer's workshop not only equally prepared her students for the state writing test, but her students also enjoyed this method of writing more and left her class feeling like writers. The results of Madison's research not only impacted her confidence in the type of instruction she provided her students, which was more rigorous and relevant than the other writing program offered; it also affected her sense of agency, empowering her to speak to her principal about her concerns with the mandated approach to teaching writing.

Finally, agency can take the form of societal change (Lytle, 2000). For example, teachers with an inquiry stance enact agency by communicating to audiences beyond their schools about how policy affects student learning (Meyers & Rust, 2003). As they do this, teachers may have the ability to influence educational change. Providing



teachers an outlet to share their findings is essential as they engage in classroom research (Stremmel, 2007). Teachers' feelings of agency are constructed in relation to others, including students, colleagues, and administrators (Lipponen & Kumpulainen, 2011).

Some educational journals feature teacher research articles; however, compared to traditional research on teaching, few teacher research studies are published (Massey & Duffy, 2004). This may account for why entire journals dedicated to teacher research have been created such as *Networks: An On-Line Journal for Teacher Research* and *Educational Action Research*. Many teacher researchers opt to share their findings orally at regional and national teacher conferences (Stremmel, 2007). National conferences, such as the American Educational Research Association (AERA), have contributed to the "legitimacy" of teacher research by supporting teacher research special interest groups (Nolen & Putten, 2007). Sharing their research with others is an important component of agency as part of an inquiry stance.

In conclusion, the literature suggests that agency is a construct of an inquiry stance because teachers with this stance believe that they can and are making a difference with their students by the way they choose to approach teaching (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Lieberman & Miller, 2001). Lytle's (2000) review of the literature regarding change and teacher research helped establish how agency, as part of an inquiry stance, fosters individual, institutional, and societal change. Seeing teachers as change agents pushes against the prefigured roles of teachers in classrooms (Cochran-Smith & Lytle, 2009), while amplifying educators' voices. Next, I discuss the origins of inquiry stance to illustrate how this framework relates to theories of education.

### **Origins of an Inquiry Stance**

An inquiry stance impacts how practitioners think and envision their role in education (Cochran-Smith & Lytle, 1999). According to Cochran-Smith and Lytle (2009), an inquiry stance is a perspective on learning. Thus, to better understand inquiry stance, it is necessary to visit its origins. The roots of inquiry in education began near the start of the 20th century with John Dewey (Nolan & Hoover, 2004). Dewey (1910) envisioned teachers as professionals who build theory from practice. He also emphasized problem solving, reflection, and using the scientific method, which are all components of inquiry (Dewey, 1938). You might have heard the Chinese proverb: “Tell me and I forget, show me and I remember, involve me and I understand.” This is the essence of what inquiry is about and why it is a preferred way of learning and teaching. Inquiry leads to understanding, but in order to understand, one must desire to seek answers to questions, a process that allows for the construction and ownership of new knowledge.

Relatedly, Vygotsky (1978) viewed learning as a process of development through practical and real-world activities that occurred in a social environment. Vygotsky asserted that people continue to learn throughout their lives as they encounter situations that make new demands on them and/or provide new opportunities. He also viewed learning as being mediated by signs and symbols and dependent on cultural practices and language. Such views argue for the importance of talk in sharing knowledge and constructing understandings. Vygotsky’s (1978) theory of how we learn relates to teacher research because teachers with an inquiry stance continue to learn about their teaching by investigating their practice. This is a continual process that occurs as

teachers are faced with new challenges in their classroom. Teachers with an inquiry stance may be less threatened by these challenges and instead see them as opportunities to learn (Cochran-Smith & Lytle, 2009).

More recently Kurt Lewin, a social psychologist, built on Vygotsky's and Dewey's theories when he used inquiry to solve real life problems (Nolan & Hoover, 2004). His theory of action research is described as "proceeding in a spiral of steps, each of which is composed of planning, action and the evaluation of the result of the action" (Kemmis & McTaggart, 1990, p. 8). The action research cycle offered a way of problematizing practice. Unlike more traditional empirical research that sought to generate generalizable knowledge, findings from action research initiatives often led to change (Adelman, 1993). Action research fostered learning by focusing on the particular needs of the contexts within which the studies themselves occurred, thus supporting Vygotsky's notion that learning can be exploratory. The construction of an action research theory by Lewin allowed this model of research to be considered "acceptable" because it focused on the needs of the people and was considered efficient and productive.

However, Lewin's action research spiral poses problems because it suggests that learning occurs through a set of steps rather than because of a shift in mindset or intellectual perspective. This step-by-step process, although valuable for learning how to conduct action research, only takes teachers so far. Thinking back to the quote I shared from Samantha, who described her initial thinking of teacher research "like checking things off a list," highlights how her initial view of teacher research was process driven with an emphasis on completing the task. However, if teachers use that process to

systematically reflect and solve problems, make changes in their classrooms and/or schools, and approach learning in new ways consistently over time, they may begin to adopt an inquiry stance that shapes their everyday ways of thinking and being.

In summary, inquiry stance has a rich history. It differs from thinking of teacher research as a time-bounded project or set of linear steps (Stern, 2014). An inquiry stance impacts how teachers think about schools, the ways knowledge is constructed, evaluated and used, and teachers' role in change (Cochran-Smith & Lytle, 1999). An inquiry stance is developed in part through conducting classroom research. In the next section, I define and describe the purpose of teacher research as well as highlight scholars' opinions of its advantages and limitations. This is followed by a discussion of the potential of teacher research to specifically support and impact literacy instruction.

### **Teacher Research**

Teacher research offers educators an opportunity to develop an inquiry stance which shapes how they make decisions about particular aspects of their teaching practice that they want to learn more about or improve (Cochran-Smith & Lytle, 2009). Teacher research means different things to different educators. To some, it may be as simple as observing a class and keeping a journal about their observations. To others, it may be as complex as a longitudinal study examining the reading development of students over several years. As a result, there are different words or phrases that describe teacher research, including practitioner inquiry or action research. Cochran-Smith and Lytle (2009) use the phrase practitioner inquiry to refer to the wide variety of people at schools who conduct research, including principals and counselors. Other scholars use the term

action research, which typically focuses on solving an immediate problem, working alone or in conjunction with others (Kemmis & McTaggart, 1990). Action research often implies social change while teacher research focuses more on knowledge generation (Cochran-Smith & Lytle, 2009).

For this study, I adopted Nolen and Putten's (2007) definition of teacher research as "a practical yet systematic research method that enables teachers to investigate their own teaching and their students' learning" (p. 401). Central to this definition is the focus on teaching as a practice centered on inquiry. In addition, I drew from the multiple definitions of teacher research that recognized the role of teacher as knower and as agent in the classroom (Chiseri-Strater & Sunstein, 2006; Cochran-Smith & Lytle, 1999; Hubbard & Power, 1999). This conception of teacher research situates inquiry as a way to build understanding and effect change. The term teacher research will be used throughout this study because it focuses specifically on teachers doing research in their classrooms.

### **Characteristics of Teacher Research**

Although there may not be a blueprint for conducting teacher research, there are some shared characteristics suggesting that teacher inquiry is descriptive, explorative, and contextual (Goswami, Lewis, Rutherford, & Waff, 2009). The challenge, then, becomes choosing among the different methodologies to find one that best serves the specific context. Case study is a popular methodology that teacher researchers use because they can focus on one unit of analysis: a child, the classroom, or school (Cochran-Smith & Lytle, 1993).

There are several different purposes for conducting research in one's classroom. I focus on the following three because they were most prevalent in the literature on teacher research: (a) improving instruction (Cochran-Smith & Lytle, 1999; Esposito & Smith, 2006; Hubbard & Power, 1999; Stremmel, 2007); (b) increasing teachers' sense of professionalism (Cochran-Smith & Lytle, 2009; Coleman, 2007; Dana & Yendol-Silva, 2004); and (c) offering a different perspective than traditional research (Cochran-Smith & Lytle, 2009; Gore & Zeichner, 1991; Hansen & Brady, 2011).

One purpose of teacher research is to improve instruction. This is done through "analyzing data of daily life in schools" (Cochran-Smith & Lytle, 1999, p. 17). As teachers do this, they closely examine their teaching practices and students' learning. For many teachers, the goal of research is to change or improve a challenging situation (Stremmel, 2007). By starting with a question that they want to answer, teachers pinpoint areas of their instruction on which to focus. For example, in a study by Esposito and Smith (2006), Shayla, a classroom teacher, chose to research ways to improve her students' self-concepts as readers. She was motivated to choose this topic because she saw that her students did not enjoy reading and because of this, they often rushed through reading assignments. Often teachers' research questions, like Shayla's, develop over time as teachers try to understand why certain things are occurring in their classrooms (Hubbard & Power, 1999). Regardless of the findings of their research, teachers often feel empowered after conducting research because they took initiative to improve their instruction and were agents of change in their own classrooms (Cochran-Smith & Lytle, 2009).

Teacher research can also increase educators' feelings of professionalism (Cochran-Smith & Lytle, 2009; Coleman, 2007; Dana & Yendol-Silva, 2004). For example, reading practitioner and research-focused articles about topics prior to doing research builds teachers' confidence about relevant content and their skills as educators (Myers, 2014). When teachers conduct research they often include their own perspectives in the process. This increases their sense of ownership within the profession of teaching because they are active contributors to their field (Coleman, 2007). This further motivates teachers to continue with inquiry (Dana & Yendol-Silva, 2004). For example, a study by Turner (2010) found that teachers who learned about and then engaged in teacher research in their classrooms felt empowered and desired to further continue researching topics of interest to them. When Turner communicated with students about their post-research experiences, they shared that engaging in inquiry bolstered feelings of professionalism and empowerment.

Teacher research offers a different perspective from traditional types of research (Cochran-Smith & Lytle, 2009; Gore & Zeichner, 1991; Hansen & Brady, 2011). Although it is similar to other research because it involves a careful and systematic examination of questions, and because it may be influenced by research already done in the field, teacher research tends to focus on issues specific to the immediate context (Hansen & Brady, 2011). For example, Gore and Zeichner (1991) found that the majority of teachers in their study chose to research discipline and classroom management—topics that specifically and immediately impacted their instruction. Teacher research also offers a different perspective than traditional research. That is,

teacher research is based on an “insider perspective” because the teacher is the researcher and the context is her classroom and her students (Cochran-Smith & Lytle, 2009). One of the reasons this perspective is beneficial is because the teacher truly knows about the culture of the classroom and thus its impact on findings. Teacher research is not generalizable to a larger audience, but rather specific to the social contexts in which it exists.

### **Advantages of Teacher Research**

The advantages of teacher research provide perspectives about why teachers engage in inquiry. A thorough review of the literature revealed many advantages of teacher research, but three appeared most prevalent. These advantages, which I outline next, include (a) questioning the role teachers play in educational change (Cochran-Smith & Lytle, 2009; Lambert, 1989); (b) increasing teachers’ sense of professionalism (Coleman, 2007; Lankshear & Knobel, 2004; Stremmel, 2007); and (c) assisting teachers in making sense of teaching (Burnaford & Hobson, 1995; Sax & Fischer, 2001).

One of the advantages of teacher research is that it allows educators to simultaneously wear the hats of both teacher and researcher. Such dual roles provide an “insider perspective” (Cochran-Smith & Lytle, 2009) that counters traditional concepts of research in which practitioners are the topics of study or serve as informants, and “outsiders” conduct the research. This type of inquiry, then, shifts thinking about research as something done to teachers to something done by teachers (Lambert, 1989). This is an advantage of teacher research because it allows teachers to see themselves in new ways, and question the roles teachers can play in educational change (Esposito &



Smith, 2006). For example, Shayla, the teacher who researched her students' self-concepts as readers, felt empowered as she learned from her research ways to assist her students in thinking more positively about their reading capabilities. Prior to conducting research in her classroom, Shayla never thought that this type of inquiry would positively affect her as an educator. Had she not had this experience, she would have never known the benefits of being both a teacher and researcher in her classroom. This example illuminates how teachers can contribute to their understanding of teaching by engaging simultaneously as teachers and researchers.

Another related advantage of teacher research is that it increases teachers' sense of professionalism (Coleman, 2007; Stremmel, 2007). Typically, educators learn about teaching from research done by individuals who are not practitioners rather than studying their own classrooms and learning from their own research (Massey & Duffy, 2004). Lankshear and Knobel (2004) found that participation in teacher research can enhance educators' sense of professionalism because it supports the idea that teachers are active agents in generating new knowledge rather than passive recipients of other people's knowledge. Also, teacher research can add to teachers' feelings of professionalism by expanding what it means to be a teacher (Stremmel, 2007). This may occur, for example, when teacher researchers share their findings at conferences. This is important because how teachers view themselves shapes how they view students and the impact they are able to make at the classroom and school level (Burnaford & Hobson, 1995; Johnson & Button, 2000).

Teacher research is also a way for teachers to make sense of their teaching (Burnaford & Hobson, 1995; Cochran-Smith & Lytle, 1992; Sax & Fischer, 2001). For some educators, it helps them “gain control” of their world through close examination of their interactions and use of language (Hubbard & Power, 1999). For others, teacher research allows educators to examine student learning and adapt accordingly (Bransford, Derry, Berliner & Hammerness, with Beckett, 2005). However, the value of teacher research is not limited just to teachers. Academics in the field of teacher education also value the type of understanding generated by teacher research (Cochran-Smith & Lytle, 1992). As a result, pre-service and in-service teacher educators offer teacher research courses as alternative ways to help teachers make sense of their teaching. Offering university courses on teacher research began because studies showed that giving teachers the tools to research their own practice encourages them to be lifelong learners across their professional careers (Cochran-Smith, Barnatt, Friedman, & Pine, 2009; Stern, 2014).

### **Limitations of Teacher Research**

Criticisms of teacher research have emerged from both inside and outside the teacher research movement (Cochran-Smith & Lytle, 2009; Fenstermacher, 1994; Huberman, 1996). Two that are most prevalent in teacher research literature are the knowledge and methods critiques (Fenstermacher, 1994; Huberman, 1996). The knowledge critique attempts to establish that there is a formal, theoretical, or scientific knowledge about teaching (Fenstermacher, 1994; Richardson, 1994). For example, this critique advocates that teacher research only generates practical knowledge. Practical knowledge, in contrast to formal knowledge, is different in the ways the information is

collected and shared. Thus, practical knowledge provides a different understanding of teaching. In addition, some critics question if teachers can generate knowledge from their perspectives inside the classroom (Fenstermacher, 1994). This critique stems from the concern that educators cannot teach and collect data at the same time because of lack of time and bias (Anderson, 2002; Cochran-Smith & Lytle, 2009, Wong, 1995).

Another aspect of the knowledge critique suggests that teacher research is a lesser form of scholarship even though it may contribute to understanding teaching and learning (Fenstermacher, 1994; Huberman, 1996). Traditional research, in contrast to teacher research, is conducted in such a way that the results may be generalized to a broader range of contexts (Anderson, 2002; Hansen & Brady, 2011). Some suggest that because of this, teacher research, which is not generalizable, should be considered separate from traditional research. However, Anderson (2002) argues that although making a distinction between traditional notions of research and teacher research might “pacify” some, he believes it would condemn teacher research to “permanent second class citizenship” (p. 23). Instead, scholars suggest highlighting the notion that teacher research is valuable because it offers insights into teaching and learning because of its “insider” perspective, which is not possible with more traditional forms of research (Cochran-Smith & Lytle, 2009).

The methods critique challenges the idea that a teacher can serve the dual roles of teacher and researcher effectively, suggesting that it is too much for one person to do alone (Poetter, Badiali, & Hammond, 2000; Wong, 1995). Some argue that teacher research is not part of the culture of teaching so it is seen as added on rather than

something teachers can do simultaneously (Metz & Page, 2002; Poetter et al., 2000).

This perspective positions teacher research as a task rather than a method for improving their teaching. Another concern is that teachers' lives are already very full; teacher research will overwhelm educators. Other researchers (Wong, 1995; Zeichner, 1986) echo concerns about time (which potentially impacts data collection), the ability to thoughtfully reflect, and efforts to share what they learned with colleagues. Although these are valid concerns, teachers who choose to do research in their classrooms make that choice fully aware of these concerns but value what they gain from inquiry enough to persevere through the challenges (Cochran-Smith & Lytle, 2009; Massey & Duffy, 2004; Vetter, 2012). For example, Grace, a classroom teacher, continued her research after graduate school despite not feeling supported by her colleagues or administration. Although they understood why she was researching, as a requirement for graduate school, they were less understanding the year following. Despite this lack of support, Grace continued her research on writing instruction because she knew that teacher research made her a better teacher (Vetter, 2012).

The final critique of teacher research relates to evaluating its quality, although most researchers would agree that standards for rigor must be maintained (Zeichner & Noffke, 2001). For example, issues of ethics have not been considered as much as they should in this field (Nolen & Putten, 2007). It is important for teacher researchers to gain informed consent prior to the collection of data and address their biases. In addition, some teachers' limited understanding of technology may increase the levels of risk associated with data collection, data storage, and confidentiality. For example, if data are

not securely stored, information that teachers would not want to share about students could be compromised. At the university level, Institutional Review Boards (IRBs) assist with joint projects between university faculty and classroom teachers. The school district's IRB may also serve to ensure rigor and provide a system of support. However, DeTardo-Bora (2004) warned that if IRB policies do not change, teacher research will not thrive because of the difficulty in gaining approval which is often challenging because of the amount of paperwork and confusion about to whom to submit paperwork. The more difficult it is to get approval, the less likely teachers will choose to research in their classrooms. Although critics argue that there are many limitations to teacher research, teachers continue investing their time and energy into inquires (Cochran-Smith & Lytle, 2009; Massey & Duffy, 2004; Vetter, 2012).

### **Teacher Education and Teacher Research**

Graduate and undergraduate programs across the country are teaching students how to be researchers in their classrooms and are offering classes that require them to conduct research (Massey & Duffy, 2004; Wong, 1995). Many universities believe that teacher research is a way to promote teacher adaptations through understanding the complexities of classrooms (Duffy & Hoffman, 1999). Teacher research can also help educators generate knowledge and assist them in problem solving (Anders, Hoffman, & Duffy, 2000). Next, teacher research in two educational contexts, pre-service education and in-service education programs, is explored.

### **Pre-service Teacher Education**

In the past ten years, advocates have challenged traditional teacher education programs to provide opportunities for pre-service teachers to inquire into their own teaching (Darling-Hammond, 2006; Lumpe, 2007). This was spurred by studies that recommended teachers should engage in teacher research to examine their practices (Cochran-Smith & Lytle, 1993; Little, 2002). When teachers examined their own practices they became more responsive to student needs (Zeichner & Liston, 1996). Thus, teacher research has become a prominent part of pre-service teacher education programs (Cochran-Smith & Lytle, 1999). Including teacher research in pre-service programs promotes individual knowledge growth as well as the opportunity to deepen understanding of dilemmas in teaching (Stern, 2014).

After reviewing the relevant literature from peer-reviewed journals in the field of teacher education, findings from research illustrate four points related to the importance of pre-service teachers engaging in teacher research. First, studies show that teacher research prolongs teachers' careers (Cochran-Smith & Lytle, 2009; Hagevik, Adeniz, & Rowell, 2012). This may be because teacher research helps teachers effectively deal with the challenges that many of them face in the first few years of teaching (Cochran-Smith & Lytle, 2009). For example, in a study by Hagevik et al. (2012), all of the pre-service teachers who engaged in teacher research were still teaching in schools several years later. This study found that teacher research gave pre-service teachers an additional tool to use when confronted with challenges in their classrooms. Findings suggested that teacher

research helped the teachers maintain a type of stamina required for the daily grind of teaching.

In addition, teacher research may support teachers in their careers because it promotes continuous learning (Boyer, 1990; Shalaway, 1990). For example, in the study by Myers (2014), a teacher engaged in inquiry about digital reading responses. She became an expert in this particular area by concentrating her attention on a specific focus. As a result, she improved her instruction and learned about the ways this type of reader response impacted her students. Furthermore, teacher research assists in continuous learning as a way to push back against what Dadds (2001) refers to as the “hurry-along” curriculum—when teaching for understanding is considered less important than teaching for coverage of the syllabus. This can be particularly true in the area of literacy where teachers are pressured to teach the many skills involved in reading, writing, listening, and speaking (Massey & Duffy, 2004). Helping teachers develop a commitment to lifelong learning is one way to help teachers stay in the field of education, and teacher research can support this goal (Zeichner, 2007).

Second, many pre-service teachers view teacher research courses as an authentic and a job-embedded form of professional development (Christenson, 2004; Thompson, 2007). Specifically, pre-service teachers find the structure of these courses appealing, compared to traditional courses and experiences, because they are allowed to choose topics to research that matter to them; thus, they consider them relevant learning experiences (Sweeney, 2003). For example, Trent (2010) found that teacher research allowed students “space” and opportunities to pose and discuss questions, which

challenged their views of teaching and learning. Specifically, students questioned their own preparation for teaching and experienced feelings of shock, uncertainty, and failure when their projects were unsuccessful or did not produce the results they expected (Trent, 2010). Although the pre-service teachers did not enjoy these feelings, they appreciated having the experience with the support of university faculty to guide them, rather than realizing these things as a first-year teacher with potentially less support. Studies show that as teachers learn about research, they are more open to considering viable solutions to problems in their future classrooms (James, 2006; Sweeney, 2003).

Third, teacher research can assist pre-service teachers in becoming better informed about their field and develop self-knowledge (Bennett, 1993; Markus & Nurius, 1986). The skills involved in teacher research (e.g., problem solving) were found to help pre-service teachers learn to recognize dilemmas in their teaching and construct a plan of action, an important aspect of teacher development (Bennett, 1993). In addition, teacher research supported teachers in developing self-knowledge through reflection, an important part of inquiry (Markus & Nurius, 1986). For example, in a study by Donnell and Harper (2005), pre-service teachers abandoned their preconceived notions of a one-size-fits-all teaching method as a result of conducting research. Teacher research also impacts how teachers view themselves as future teachers, including the ideal possible selves they would like to become, as well as the possible selves that they wished to avoid (Markus & Nurius, 1986).

Fourth, teacher research can support pre-service teachers during their field placements (Cardelle-Elawar, 1993; Phillips & Carr, 2010; Poetter et al., 2000).



Researchers have found that when pre-service teachers engaged in classroom research with their cooperating teachers, both groups of teachers benefited from the experience by becoming more reflective and aware of their teaching practices (Cardelle-Elawar, 1993; Levin & Rock, 2003; Poetter et al., 2000; Rock & Levin, 2002; Sparks-Langer, Colton, Pasch, & Starko, 1991). In addition, Phillips and Carr (2010) found that both teacher candidates and mentors came to view research as a component of being an effective teacher. For example, in one study pre-service teachers and mentor teachers worked together to determine a problem they wanted to investigate, planned potential actions to take, determined data collection ideas, and tried to anticipate what they might find (Poetter et al., 2000). This study showed that teacher research allowed mentors and intern teams to share ideas and interpret what was happening in their classroom together as colleagues. Overall, research has shown that teacher research has the potential to impact pre-service teachers in numerous ways. This includes providing opportunities for pre-service teachers to inquire into their own teaching and collaborate with other colleagues in the field. In the next section, I focus on the impact of teacher research on in-service teachers.

### **In-service Teacher Education**

Many in-service teachers encounter classroom research through graduate classes during which they learn to be critical consumers and evaluators of research (Burnaford & Hobson, 1995; Esposito & Smith 2006; Massey & Duffy, 2004; Vetter & Russell, 2011). These teachers are already familiar with the particular challenges they face in classrooms and schools. Thus, their perspectives and needs differ from pre-service teachers. A

review of the literature revealed several ways that teacher research impacts in-service teachers, however three were particularly prominent in the scholarship including (a) how teacher research can shape how in-service teachers view their teaching (Goswami & Rutherford, 2009; Winicki, 2006); (b) how teacher research supports in-service teachers' taking action (Dana & Yendol-Silva, 2004; Fullan, 2000; Massey & Duffy, 2004); and (c) how some teachers continue to conduct research after graduation because they valued what they learned from that experience (Coleman, 2007; Massey et al., 2009; Vetter, 2012).

First, teacher research can shape how in-service teachers view their teaching (Goswami & Rutherford, 2009; Wideen, Mayer-Smith, & Moon, 1998; Winicki, 2006). For example, many teachers want to learn about research to answer questions related to teaching and instruction, and teacher research is one way to answer those questions (Goswami & Rutherford, 2009). As teachers answer questions, they become producers of research (Winicki, 2006). For example, when the teachers in Winicki's graduate class began to see themselves in this way, they developed a new understanding of what it means to be a teacher. Specifically, they had never thought of themselves as researchers. Teacher research, in this study, blurred the traditionally-defined roles of teacher and learner impacting the teachers and their students' attitudes towards school (Winicki, 2006).

Second, teacher research is a way to support in-service teachers' taking action (Dana & Yendol-Silva, 2004; Fullan, 2000; Massey & Duffy, 2004). For example, Massey et al. (2009) examined how participation in a graduate level teacher research

course affected educators' sense of agency revealing that teachers who engaged in research showed a range of agency. For example, some of the teachers only felt comfortable making changes within the context of their classrooms, while others took steps to implement school-wide changes based on the findings of their research. This study showed that teacher research supports in-service teachers in taking action in small and big ways. Regardless of the size of the action, it is valuable to the teacher and her students.

Third, some teachers continue to conduct research after graduation because they valued what they learned from that experience (Coleman, 2007; Vetter, 2012). This was seen in the example of Grace shared earlier, who continued teacher research despite the lack of support at her school. The continuing effects of teacher research extending beyond the university setting are documented in several research studies (Coleman, 2007; Myers, 2014; Vetter, 2012). These effects include teachers going on to continue their education and earn advanced degrees such as a Ph.D. However, other studies pointed to the challenges of researching without support from the university. For example, Massey et al. (2009) found that only one out of the five teachers in their study remained in the same teaching position as when they were enrolled in the graduate class. This may be why none of the five teachers were still conducting teacher research a year later. These findings are supported by Hendricks (2009) who found that few teachers continued with teacher research beyond graduate program requirements because of professional obligations and school cultures that did not support action research. However, the teachers in Hendricks's (2009) study all said that because of the course they had a

different understanding of what constituted research and the impact that teacher research could have on instruction. They also noted that the nature of the course provided a sense of community, which the teachers missed once the course finished.

Educational settings offer a unique opportunity to inform teachers and support their efforts to develop an inquiry stance by participating in teacher research (Hendricks, 2009; Massey et al., 2009; Massey & Duffy, 2004). The collaborative relationship between university researchers and classroom teachers is one way that universities can support teacher research (Cochran-Smith & Lytle, 2009). Working together, these educators can co-construct knowledge and investigate issues of pedagogy (Cochran-Smith & Lytle, 2009). Pre-service and in-service education programs can foster inquiry stances by offering courses on teacher research that may assist educators in generating knowledge and problem solving (Anders et al., 2000). In addition, an inquiry stance, or habit of mind, is supported through teacher research because it opens opportunities for teachers to reflect, gain pedagogical content knowledge, and enact agency in ways that other kinds of teacher development do not. In the next section, the literature on teacher research on literacy is explored.

### **Literacy and Teacher Research**

Educators can use teacher research to examine their literacy instruction (Lytle, 2000). During my review of the literature, it was evident that teacher research is one way to enhance and/or improve the literacy outcomes in classrooms because it allows educators to “observe, document, analyze the daily work of literacy teaching and learning as it occurs in and out of the classroom and school context” (Lytle, 2000, p. 702). By

engaging in these practices, teachers take a closer look at their teaching and their students' learning, which relates to the goals of this study about understanding how an inquiry stance shapes teachers literacy instruction. However, before examining how teacher research has impacted literacy instruction, I will first explore what is meant by literacy.

### **Defining Literacy**

Defining literacy is a daunting task because of the variety of definitions. Some scholars define literacy as the ability to use printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential (National Assessment of Adult Literacy, 2003). Other scholars take a more complex view: literacy is a "social practice not simply a technical and neutral skill" (Street, 2001, p. 7). Whether the definition is task driven or socially constructed, the definition of literacy is worth further exploration. Still, literacy scholars have varying views of what counts as literacy, including what one values, how one reads, writes, and reflects. Therefore, Gee (1991) argues that different views of literacy are grounded in particular worldviews. Whatever form literacy might take, literacy is "always embedded in socially constructed epistemological principles" (Street, 2001, p. 7). This sociocultural perspective, and its increasing popularity, is one reason the term literacy, rather than reading, has become the preferred term in the literature (Gee, 2000).

The definition of literacy continues to change as technology impacts the ways in which individuals read, write, speak, and listen (Lankshear & Knobel, 2004). Hiebert (1991) describes a shift from a text-driven definition of literacy to a view of literacy as "active transformation of texts" (p. 1). This contrasts from the traditional view of literacy

where meaning resides within the text. In addition, this new view asserts that meaning is created through an interaction between the reader and the text (Freire & Macedo, 2013), generating a definition of literacy that is dynamic and reflects the changes that are occurring within our society today (Hiebert, 1991).

For students in classrooms, this expanded definition of literacy is also applicable as they use language and literacy in broader ways beyond just reading and writing (Langer, 1991; Moll & Gonzalez, 1994). The ways students express their literacy is grounded in what Street (2001) says is their “conception of knowledge, identity and being” (p. 7). Who students are impacts how they express their literacy. Teachers are expected to foster these literacy skills, which are often referred to as 21st century skills.

For my research, I draw from Street’s (2001) sociocultural definition of literacy, which values the role of language in the construction of knowledge, learning as an identity process, and the importance of social interactions. Street’s definition of literacy relates to an inquiry stance framework because it values the notion that who people are shapes how they see and interact with the world. The purpose of this study was to understand how teachers construct and enact an inquiry stance and how those stances shaped literacy instruction. Thus, defining literacy is important before examining how teacher research shapes literacy instruction.

### **Literacy Instruction and Teacher Research**

Examining the literature on teacher research and literacy instruction is challenging because often teachers who do research in their classrooms do not publish or label it as “teacher research.” In addition, much of the literature connecting teacher research and

literacy instruction exists as separate studies telling individual stories of educators using teacher research in their classrooms to improve their literacy instruction (Lytle, 2000). The first published works joining the study of literacy practices and teacher research occurred in 1987. These included: *Reclaiming the Classroom: Teacher Research as an Agency for Change* (Goswami & Stillman, 1987), *Working Together: A Guide for Teacher Researchers* (Mohr & Maclean, 1987) and *In the Middle* (Atwell, 1987). These texts, along with the teacher research movement of the late 1980s, were rooted deeply in classroom practices with the goal of making inquiry part of teachers' lives. University educators have written many of the studies connecting teacher research and literacy (Massey et al., 2009). Some teachers who published in journals wrote about their experiences with teacher research as graduate students or how they collaborated with a university educator (Massey et al., 2009). However, only a few of these studies have focused on literacy as the content being researched. Others have published in practitioner journals like *Networks*, the online journal for teacher research. Instead, many of the teacher research inquiries about literacy instruction are shared orally at regional and national teacher conferences (Stremmel, 2007). A few school districts in the U.S., such as those in Madison, Wisconsin and Fairfax County, Virginia, support teacher research by sponsoring conferences and publishing teacher research studies on their websites.

To learn more about teacher research and literacy instruction, I began by doing an ERIC search using the terms *teacher research* and *literacy instruction*. Then, I examined those articles to determine how many articles were actual teacher research studies. From those articles I found that we know the following about teacher research and literacy

instruction: (a) teacher research increases literacy instruction knowledge (Atwell, 1987; Cone, 1994; Massey & Duffy, 2004; Mohr & Maclean, 1987; Stout, 2009; Vetter et al., 2014); (b) the majority of teacher research studies focus on literacy content and pedagogy (Baumann & Duffy, 2001; Cochran-Smith & Lytle, 1999); and (c) schools impact how teachers conduct inquiry on literacy instruction (Goswami & Stillman, 1987; Massey et al., 2009; Taylor et al., 1999).

Teacher research increases teachers' literacy instructional knowledge about students' literacy (Cone, 1994; Stout, 2009; Vetter et al., 2014). For example, Cone (1994) noted how teacher research helped inform her efforts to transform high school students into self-motivated, lifelong readers. In another example, Stout (2009) detailed her journey to implement literacy centers in her first-grade classroom, wondering if they would improve her students' reading performance. During this six-week study, she saw her students increase an average of four reading levels. However, even more beneficial to Rebecca was the connection between teacher research and assessment. Rebecca found that the notes and reflections she wrote each day, as part of her data collection, impacted her assessments, which thus drove her instruction. She also noted that her observations led her to "fine tune" her daily teaching practices resulting in her instruction becoming more learner-centered. In another example, Smiles (2008), who engaged in collaborative inquiry with her students, wrote that this experience led to a heightened awareness of how language and literacy impacted her students. In a final example of how teacher research increases teachers' understanding of their students' literacy is a study by Cordova and Matthiesen (2010). A second-grade teacher investigated the impact of



having her students read information about making maps, read stories about communities, and actually make maps. Her teacher research encouraged the extension of this project over several months because the data suggested that her students were not only engaged, but that the project “built bridges between the mandated curriculum and their lived experiences making way for a hybridized expanded living curriculum” (Cordova & Matthiesen, 2010, p. 461). Teachers use inquiry in various grade levels and contexts to increase their understanding of students’ literacy. These examples represent what is happening across the county and world as educators strive to find additional ways to fine-tune their teaching.

The literature on teacher research and literacy also revealed that teachers focus their studies on a variety of literacy topics (Corden, 2002; Moss, Springer, & Dehr, 2008). For example, when researching literacy practices, teachers may choose to investigate reading, literature response, or oral language (Baumann & Duffy, 2001). Others have investigated literacy interventions (Corden, 2002) and writing instruction (Moss et al., 2008) with the goal of better understanding the ways in which these programs can best be implemented in the classroom. Most of the teacher research studies with a literacy focus, however, relate to a transformed or expanded notion of practice (Cochran-Smith & Lytle, 1999). These studies suggest that teacher researchers are also interested in pedagogy. For example, Swift (1993) inquired about the impact of reading workshop on the attitudes of her students. She found that teacher research made her question how she was teaching reading and opened up new questions about her practice. These questions included:

“How did reading workshop strengthen comprehension?” and “What impact did it have on who was reading below grade level?”

Finally, the role of context was apparent in many of the literacy studies I reviewed (Grimmett, 1996; Meijer, Oolbekkink, Meirink, & Lockhorst, 2013; Taylor et al., 1999). For example, in one study teachers investigated the way that schools impacted how well teachers were able to implement effective instruction (Taylor et al., 1999). The findings from this study suggest that although teacher research gives teachers some control in their particular classrooms by choosing topics and methods of doing research, there are many aspects of teachers’ lives in schools that they do not have much control over, such as scheduling and mandated scripted programs. In another study that took place in Albuquerque, the school context fostered communities of teacher researchers (Raisch, 2005). The teachers shared with each other, using their group as an outlet and a resource. Teacher research and the context of their school encouraged teachers to move beyond just identifying problems in their classrooms to using inquiry to find solutions.

After conducting an extensive literature review of teacher research and literacy instruction, it is clear that more studies are needed to determine how teacher research shapes literacy instruction (Massey & Duffy, 2004). These studies, which include observations within classrooms, are needed to bring together the concepts of inquiry stance, teacher research, and literacy because they could potentially offer insight into the ways that inquiry can enhance and/or improve the literacy outcomes in classrooms (Lytle, 2000). Thus, this dissertation study sought to further understand not only how teachers

constructed and enacted an inquiry stance within a graduate class and the year following, but also what impact those stances had on literacy instruction.

### **Chapter Summary**

Although an inquiry stance is often referenced in teacher research literature, the concept is rather abstract (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004; Lieberman & Miller, 2001; Nolan & Hoover, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008). This study was developed to examine more concrete characteristics of inquiry stance: reflection, pedagogical content knowledge, and agency. An inquiry stance positions the teacher as creator of his or her own knowledge, which involves thinking differently about what teachers do and why they do it. Taking on an inquiry stance is about discovering answers to questions that matter most to teachers and will make the biggest impact in their classrooms. An inquiry stance, developed through teacher research, has the potential to positively impact literacy instruction because it opens opportunities for teachers to transform their teaching (Cochran-Smith & Lytle, 2009). Particular aspects of teachers' literacy instruction may change because they want to learn more or improve, which is supported by their inquiry stance.

An inquiry stance is central to my research because it helped me better understand and answer my research questions in phase one: In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research? How does an inquiry stance shape their literacy instruction? And in phase two: In what ways does a teacher construct and enact an inquiry stance within the context of her elementary classroom?

How does an inquiry stance shape her literacy instruction? Further details of this study will be described in Chapter III.

### **CHAPTER III**

### **METHODOLOGY**

This research project has been an incredibly helpful tool to me as a teacher. It has allowed me to challenge my students and enhance my instruction in ways that I probably wouldn't have done otherwise. ~ Jane

The quote that begins this chapter is from Jane's research journal during her first teacher research inquiry. It emphasizes how she adopted an inquiry stance in the way she viewed research as a tool for improving instruction. The purpose of this study is twofold: (a) to understand the ways in which teachers construct and enact an inquiry stance within the context of a graduate class and how that stance shaped their literacy instruction; and (b) to understand how one elementary teacher, Liza, enacted an inquiry stance while researching on her own and how that stance shaped her literacy instruction.

This chapter describes and justifies the methods used in this study. I begin by sharing why I chose case study as the methodology for this study. Then, I describe the participants, the graduate class, and Liza's school, which provides an overview of the context in which this research occurred. Next, I detail the data collection and data analysis procedures. I end by addressing ethical issues, strengths and limitations of this study, as well as the trustworthiness of my research.

#### **Research Design**

My work uses case study as the methodology because it best assisted me in answering my research questions by focusing first on the experiences of the teachers in

the graduate class and then on Liza at her school. Case study research involves examining an issue by exploring one or more cases within a bounded system (i.e., a setting or context) over time and through detailed and in-depth data collection involving multiple sources of information. The bounded system in phase one was the graduate class; in phase two, it was Liza's school and classroom. The study investigates the following questions:

Phase One:

- ❖ In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research?
- ❖ How does an inquiry stance shape their literacy instruction?

Phase Two:

- ❖ In what ways does a teacher construct and enact an inquiry stance within the context of her elementary classroom?
- ❖ How does an inquiry stance shape her literacy instruction?

### **Case Study**

The purpose of a case study is to understand the larger phenomenon of inquiry as stance through close examination of specific cases by focusing on the particulars (Rossman & Rallis, 2003). Case studies are often used in education (Merriam, 1998) because they provide information on the “dimension and dynamics of classroom living and learning” (Dyson, 1995, p. 51). More specifically, my research utilized Stake's collective case study approach. Stake (1995) defined collective case study by stating that each case is “instrumental to learning” (p. 3). In this study, case studies contributed to

understanding the larger phenomenon of inquiry as stance, as well as understanding the impact of that stance on literacy instruction.

There are four reasons why using case study as a methodology helped me answer my research questions. First, a case study calls for research questions that ask “how and why.” In this study I wanted to understand how teachers take on an inquiry stance within a graduate class and then after the graduate course to understand both how and why the experience of conducting research a second time was different. Second, I wanted to understand the larger phenomenon of how an inquiry stance might shape literacy instruction. Third, having multiple cases in phase one of this study highlighted each teacher’s individual experiences and provided opportunities for rich description. Fourth, using case study methods helped me uncover the meanings that teachers constructed about teacher research and their literacy practices.

### **Participants**

This study sought to understand how a purposefully-selected, small sample of teachers constructed and enacted an inquiry stance and what impact that stance had on their literacy instruction. Permission was gained to complete this study based on IRB standards and all participants volunteered to be a part of this study, including teachers, parents, and students.

### **Phase One**

The participants in phase one of this study were five elementary in-service teachers enrolled in a year-long master’s level course called Teacher as Researcher and Leader, which I assisted in during the 2012–2013 school year. At the end of their

program, each of these teachers graduated with a master's in Curriculum and Instruction with an emphasis in reading. These teachers, all women, had various levels of experience teaching and worked in different contexts. To protect the identities of the participants I have given each of them a pseudonym. Relevant information about the participants in this study can be found in Table 1. Additional information about the participants from phase one is found in Chapter IV.

Table 1

## Teacher Demographic Information and School Context

Teacher	Ethnicity	Years Taught	Current Grade Level	School Location and Size	Percentage of free-reduced lunch	Ethnicity
Liza	White	6	1	Suburban 540 students	68.63%	51% Black 29% White 18% Hispanic 2% Asian
Kate	White	11	K	Rural 866 students	91%	36% Hispanic 29% White 29% Black 6% Two or more races
Jane	White	6	K-1	Suburban 835 students	26%	56% White 29% Black 8% Asian 5% Hispanic 2% Indian
Donna	African American	3	5	Urban 278 students Gender separate classes	99%	90.3% Black 6.7% Hispanic 3% Two or more races
Tiffany	White	4	K-5 (ESL)	Urban 740 students	74%	51% Black 30% Hispanic 15% White 5% Asian



The participants for this study were asked to participate in the first phase of this research because they taught in an elementary classroom and were interested in researching some aspect of literacy instruction as the topic for their teacher research project. Although all five teachers successfully completed their first teacher research project, only two teachers expressed interest in continuing to conduct research in the area of literacy in their classrooms after they graduated. Liza was the only teacher who completed her second teacher research project.

### **Phase Two**

The second phase of the study focused on Liza and how she continued to conduct research on her own in her first-grade classroom. Liza's six years of teaching experience were all at the same school. She described herself as very involved with her students and she worked every day to make sure that her students' needs were met. Differentiating instruction was a goal, but she admitted that it is hard to do. Liza's first research project focused on examining the impact of using writer's workshop in her first-grade classroom. In the second phase of this study, her first year doing her research on her own, Liza examined the impact of grouping across grade levels for guided reading on students' reading ability. Additional rich detail is provided about Liza in Chapter V.

## **Context**

### **Phase One**

Phase one of the study occurred during the year-long Teacher as Researcher/Leader course at a university in the southeast. The university, a public institution located in the downtown area of a midsized city, has approximately 15,000

undergraduate students and 3,500 graduate students. This graduate course became a requirement for graduation from the master's program in 2000. During the first semester, the teachers learned about teacher research, read examples of teacher research studies, chose a research question, created a literature review on their topic, and made a plan for collecting and analyzing data. In the second semester of the course, the teachers carried out the plan they created the previous semester by conducting research in their classrooms. An important component of this year-long course was leadership, and one way students could demonstrate leadership was by planning staff development at their schools related to the findings of their research. In addition, each student wrote a final paper with detailed findings from their study and presented these findings at a local teacher research conference. The required texts for this course were: *What Works: A Practical Guide for Teacher Research* (Chiseri-Strater & Sunstein, 2006) and *Awakening the Sleeping Giant: Helping Teachers Develop as Leaders* (Katzenmeyer & Moller, 2009).

The graduate class met weekly at night for just under three hours. A typical class was equally split between a focus on research and leadership. Each class included a lecture, whole group conversations, small group work, and time for the students to meet in their research groups. Because most of the teachers enrolled in the course taught full time, the primary challenges they expressed experiencing included exhaustion, being overwhelmed with the amount of work, and uncertainty about conducting research for the first time.

## **Phase Two**

The second part of the study occurred at Liza's school. Grandover Elementary is a K-5 Title 1 school located in Alamo County (all pseudonyms). The following demographic information provides a better understanding of the students Liza taught. At the time of this study there were 540 students enrolled in the school with an average class size of 20 students per class. This school's student population was 51% Black, 29% White, 18% Hispanic, and 2% Asian. Grandover Elementary was classified as a School of Progress, meaning that at least 60% of their students were at grade level. A total of 65% of students were eligible to receive free and reduced lunch. There was a 7% teacher turnover rate at the school compared to the average 13% in the district. At Liza's school, teacher research was not as supported the first time because it advocated something that the school was not initially supporting. During the second phase of the study Liza's research was more accepted because of the data-driven nature of her topic.

### **Data Sources and Data Collection**

In this section, I describe my data collection techniques and resources that included interviews, observations, field notes, and artifacts. I elaborate on the procedures below, in detailed descriptions associated with each phase of the study. To begin, I provide a broad overview of data collection in each phase, using a crosswalk (O'Sullivan, 1991) to show the link between the research questions, data sources, data analysis, and the theoretical framework (See Table 2 and 4) and a timeline to illustrate when/how data were collected over time. Then I provide a detailed description of the data collection techniques and sources I used in each phase of the study.

## Data Crosswalk and Timeline

**Phase one.** To provide broad information about the relationship between my research question and data collection procedures, I provide a table (see Table 2) that describes how the research questions were examined in phase one of this study including how teachers construct and enact an inquiry stance and the impact of an inquiry stance on literacy practices. Specifically, this table describes how data collection and analysis were used to answer each of my research questions. A rationale for each section is included to provide justification for the research.

Table 2

Phase One: Research Questions, Data Sources, Data Analysis, and Rationale

Research Question #1	How do teachers construct and enact an inquiry stance?
Data Sources	Semi-structured interviews, observations, field notes, final papers, research journals, class discussions
Data Analysis	Comparison of common patterns (Corbin & Strauss, 2007), triangulation of sources over time (Miles & Huberman, 1994), member checks
Rationale	Literature suggests that teachers construct an inquiry stance in different ways (Cochran-Smith & Lytle, 2009)
Research Question #2	How does an inquiry stance shape literacy instruction?
Data Sources	Semi-structured interviews, observations, field notes, final papers, research journals, class discussions
Data Analysis	Comparison of common patterns (Corbin & Strauss, 2007), triangulation of sources over time (Miles & Huberman, 1994), member checks
Rationale	Literature suggests that teacher research shapes literacy instruction (Massey & Duffy, 2004)

In phase one, I used semi-structured interviews, observations, and artifacts such as research journals and final papers to understand how the teachers constructed and enacted an inquiry stance and the impact of those stances on their literacy instruction. I include more details about these data sources in the next section. Table 3 highlights my data collection procedures during phase one. I elaborate on the data collection procedures chronologically in the sections below.

Table 3

Data Collection Procedures for Phase One

Date	Data Collection
January	<ul style="list-style-type: none"> <li>❖ Weekly observations during the graduate class</li> <li>❖ Field notes during the graduate class</li> <li>❖ Collection of class assignments</li> <li>❖ Photocopies of research journals</li> </ul>
February	<ul style="list-style-type: none"> <li>❖ First formal interview with all teachers</li> <li>❖ Weekly observations during the graduate class</li> <li>❖ Field notes during the graduate class</li> <li>❖ Collection of class assignments</li> <li>❖ Photocopies of research journals</li> </ul>
March	<ul style="list-style-type: none"> <li>❖ Weekly observations during the graduate class</li> <li>❖ Field notes during the graduate class</li> <li>❖ Collection of class assignments</li> <li>❖ Photocopies of research journals</li> </ul>
April	<ul style="list-style-type: none"> <li>❖ Second formal interview with all teachers</li> <li>❖ Weekly observations during the graduate class</li> <li>❖ Field notes during the graduate class</li> <li>❖ Collection of class assignments</li> <li>❖ Photocopies of research journals</li> </ul>

Table 3

(Cont.)

Date	Data Collection
May	<ul style="list-style-type: none"> <li>❖ Third formal interview with all teachers</li> <li>❖ Weekly observations during the graduate class</li> <li>❖ Field notes during the graduate class</li> <li>❖ Collection of class assignments</li> <li>❖ Photocopies of research journals</li> </ul>

**Phase two.** To provide broad information about the relationship between my research question and data collection procedures, I provide a table (see Table 4) that describes how the research questions were examined in phase two of this study, including how Liza constructed and enacted an inquiry stance and the impact of an inquiry stance on literacy practices. Specifically, this table describes how data collection and analysis were used to answer each of my research questions. A rationale for each section is included to provide justification for the research.

Table 4

Phase One: Research Questions, Data Sources, Data Analysis, and Rationale

Research Question #3	How do teachers construct and enact an inquiry stance?
Data Sources	Semi-structured interviews, observations, field notes, final papers, research journals, class discussions
Data Analysis	Comparison of common patterns (Corbin & Strauss, 2007), triangulation of sources over time (Miles & Huberman, 1994), member checks
Rationale	Literature suggests that teachers construct an inquiry stance in different ways (Cochran-Smith & Lytle, 2009)

Table 4

(Cont.)

Research Question #4	How does an inquiry stance shape literacy instruction?
Data Sources	Semi-structured interviews, observations, field notes, final papers, research journals, class discussions
Data Analysis	Comparison of common patterns (Corbin & Strauss, 2007), triangulation of sources over time (Miles & Huberman, 1994), member checks
Rationale	Literature suggests that teacher research shapes literacy instruction (Massey & Duffy, 2004)

In phase two, I spent over 72 hours in Liza's classroom. I also collected various data sources, such as three formal semi-structured interviews, artifacts such as lesson plans, informal conversations, and email correspondence over the six months of this phase of the study. These data sources helped me understand how Liza constructed and enacted an inquiry stance and how it shaped her literacy instruction. Additional information about these data sources is provided below. Table 5 highlights the data collection procedures for phase two.

Table 5

## Data Collection Procedures for Phase Two

Date	Data Collection
January	<ul style="list-style-type: none"> <li>❖ First formal interview with Liza</li> <li>❖ Familiarize myself with classroom and students</li> <li>❖ Formal observations and data collection begin 1-2 times a week</li> <li>❖ Collection of teacher lesson plans that related to teacher research</li> </ul>

Table 5

(Cont.)

Date	Data Collection
February	<ul style="list-style-type: none"> <li>❖ Continued formal observations 1-2 times a week</li> <li>❖ Informal interviews with Liza</li> <li>❖ Collection of teacher lesson plans that related to teacher research</li> </ul>
March	<ul style="list-style-type: none"> <li>❖ Continued formal observations 1-2 times a week</li> <li>❖ Informal interviews with Liza</li> <li>❖ Collection of teacher lesson plans that related to teacher research</li> </ul>
April	<ul style="list-style-type: none"> <li>❖ Continued formal observations 1-2 times a week</li> <li>❖ Second formal interview with Liza</li> <li>❖ Collection of teacher lesson plans that related to teacher research</li> </ul>
May	<ul style="list-style-type: none"> <li>❖ Continued formal observations 1-2 times a week</li> <li>❖ Informal interviews with Liza</li> <li>❖ Collection of teacher lesson plans that related to teacher research</li> </ul>
June	<ul style="list-style-type: none"> <li>❖ Third formal interview with Liza</li> </ul>

### Formal and Informal Interviews

Semi-structured interviews provided insights about the participants' research, unfolding inquiry stances, and literacy practices. This type of data helped me answer my research questions by allowing me to better understand the participants' perceptions of their inquiry stances and how these stances impacted their teaching. Hall, Johnson, Juzwik, Wortham, and Mosley (2009) wrote that individuals use speech as a way to understand what it means to be a particular person within a specific context. The interviews provided an opportunity for the teachers to express who they are as teacher researchers in their classrooms in their particular schools. The three formal interviews I conducted with the five elementary literacy teachers during phase one, and with Liza



during phase two, were all semi-structured allowing for guided conversations (Yin, 2013; see Appendixes A, B, C, D, E, and F for the interview protocols).

**Phase one.** I formally interviewed each teacher three times in the second semester of the year-long graduate class. Each interview was audiotaped and transcribed. In the initial semi-structured interviews, I asked the teachers about the research they planned to conduct in their classrooms and how they thought their research might benefit their students and their teaching, specifically focusing on literacy. The second formal semi-structured interviews occurred about halfway through the semester and focused on their interpretations of the data they had collected thus far and how/what they were learning about their literacy practices by conducting the research. During this interview, I asked all participants to bring an artifact from their research to talk about. Asking participants about artifacts in an interview allowed them an opportunity to further verbalize their research process and how the various data sources they were using were adding to their knowledge about their topic, their students, and their teaching. The third and final interview occurred at the end of the semester after their final research papers were complete. This interview served as a way for the teachers to share any final thoughts with me about conducting research and its impact on their literacy instruction. They also reflected on how their understanding of research evolved throughout the year and discussed their interest in continuing teacher research. Throughout the study, I also interviewed the teachers informally. These conversations occurred before or after the class and were recorded in my field notes.

**Phase two.** During my first interview with Liza, I asked questions about her research topic and plan for data collection. I also asked about the similarities and differences between conducting research now compared to while in the graduate class. During the second interview, I asked Liza to bring an artifact from her research. This allowed me to ask more in-depth questions about the types of data she was collecting and her analysis of that data. This interview also provided me the opportunity to specifically discuss and ask questions about literacy events I observed occurring in the classroom. The final interview offered an opportunity to talk to Liza once her second research inquiry was complete, allowing time to share her thoughts and feelings about the experience, and discuss if she thought her literacy instruction changed as a result of her research.

Liza and I also had many informal conversations that generally followed a specific event during my observations. These conversations, either face-to-face or via email, provided me with an in-the-moment understanding of how Liza was constructing her understanding of an inquiry stance and how she made meaning about inquiry's impact on her literacy instruction.

### **Observations**

Although research has shown the benefits of adopting an inquiry stance, a majority of the current literature related to how teacher research informs instructional practices relies heavily on teacher perception and self-reporting (Cochran-Smith & Lytle, 2009; Massey & Duffy, 2004). Thus observations were important in both phases of the study. Using observations in a case study provides additional understanding about the

context of the study and helps to triangulate findings when used along with interviews and artifacts (Merriam, 1998).

**Phase one.** In phase one, the observations all occurred within the weekly three-hour graduate class. During the first semester, informal observations helped me become familiar with the teachers and assisted in my decision regarding whom I should invite to participate in the study. The second semester these observations became more formal and allowed me to focus on how the teachers constructed an inquiry stance and how those stances impacted literacy instruction. Acting as a participant-observer, I was either in the back of the room taking notes during whole-group conversations or walking around and interacting with small groups, then going back to my laptop to add more notes.

I did not use an observation protocol in this phase of the study because I was interested in taking note of broad observations such as how the teachers talked about their research and what challenges they faced while conducting research in schools. I chose to observe the teachers' behavior as it occurred without predetermined categories of measurement or response (Adler & Adler, 1994; Mertens, 1998). I sat in the back of class and typed notes that related to how the teachers began to see themselves as researchers. I organized notes from my observations chronologically and by participant when relevant. I noticed how the teachers situated themselves as teacher researchers and words and phrases they said that indicated their knowledge about teacher research. These observations helped me develop a protocol that I used in phase two.

As the year progressed, I developed relationships with the students and often spoke to them before and after class. These conversations usually involved discussions

about literacy instruction. For example, one teacher asked me for some resources and ideas on how to structure professional development sessions for her colleagues, something she had not done before.

**Phase two.** In phase two, I wanted to continue using observations because few studies of teacher research utilize classroom observations (Snow-Gerono, 2005; Zambo & Zambo, 2006). I observed twice a week in Liza's classroom during literacy instruction, specifically during guided reading, because that was the topic of her inquiry. I began by doing informal observations, which helped me become familiar with the classroom routines and students. These observations also allowed me to develop initial understandings of Liza's observable inquiry stance. The formal observations began a month later and continued one to two times a week so I could determine if the observations supported my interpretations of events (Spradley, 1980). I used an observation protocol (Appendix G) to help me focus on the observable aspects of an inquiry stance and new/changed literacy practices based on the teachers' research. In addition, the observation protocol helped me identify instances of reflection, pedagogical content knowledge, and agency. Although I used this protocol, I still remained open to other emerging themes.

The observation protocol allowed me to see reflection as (a) when teachers analyzed decisions they made about practice; and (b) when teachers related theory (something they read from class, for example) to practice. The observation protocol for pedagogical content knowledge focused on (a) when teachers illustrated increased depth of knowledge about both the content and pedagogy of their practices; and (b) instances

after reading relevant literature when teachers responded about pedagogy or content. The observation protocol for agency examined (a) when teachers took an action, or talked about wanting to take action, based on the findings of their research; and (b) when teachers mentioned why they took action. I also used an observation protocol to help focus my attention on Liza's literacy instruction (see Appendix H). This protocol focused on several effective literacy instructional practices, as detailed in the research, such as (a) rigorous and relevant instruction, (b) opportunities to learn, (c) classroom conversations, (d) community, (e) assessment, (f) context, and (g) other. These categories for observation helped focus my attention on how and why Liza used particular practices during guided reading. These observations, over time, provided understanding about the ways that an inquiry stance shaped her literacy instruction.

Although my role during observations began strictly as that of an observer, it quickly shifted to participant-observer as the students became more familiar with me. An example of this was seen during my first observation in Liza's classroom. After introducing myself, I found a quiet out of the way spot to sit. Or so I thought. Within minutes, Taylor, a white female with bobbed brown hair, came up to me and asked about a worksheet that she was having trouble reading. It was from one of the literacy stations, *Time Life for Kids*. She was supposed to read the information and then answer questions about how countries celebrate the new year. Soon after, a boy sat down next to me and started reading a *39 Clues* book out loud. In the first sentence he only knew two of the words, but kept trying to read, looking at me for help. As I worked with the students who approached me for help, Liza kept assessing. However, she took time to talk to Cameron

when he came to her with a question. She asked him to tell her about his thinking on how to sequence pictures of building a snowman. Later, he visited me. He had fixed the order of the pictures and said, “I don’t know how to spell nothing.” I asked him in return, “What does this picture show?” “They make two snowballs.” I told him to start with the first word. He spelled all of it right but got stuck on spelling snowball. “You are a good speller,” I said. He said, “Thanks, I’m seven” (Observation field notes, January 9, 2014). This example highlights a typical observation in Liza’s classroom. It appeared as though her students saw adults in the classroom as extra helpers and they felt comfortable talking to me each time I visited. This example also emphasizes how my role as a participant-observer did not appear to disrupt the class.

### **Field Notes**

Because this study utilized case study methodology, I took detailed field notes using thick rich description during each observation (Patton, 2002). After each observation, I expanded my notes based on additional thoughts and informal conversations with the participants. Taking notes during the class and observations in Liza’s classroom helped me record my perspective regarding how teachers constructed and enacted an inquiry stance. Also, these notes helped me establish initial themes, informed future interview questions, and revealed gaps in data collection. These notes supported the accuracy of my findings (Creswell, 2013).

**Phase one.** During the graduate class I typed field notes on my laptop. These notes detailed whole group and small group conversations related to teacher research. I paid particular attention to ways the five teachers talked about research and their literacy

instruction during their research group meetings. For example, Donna said to her group, “I feel so overwhelmed. I know teaching vocabulary this way is what I should do but it is so hard.” One of her group members comforted her and offered encouragement by saying, “Just keep the bigger picture of what they are learning in mind” (Observational field notes, February, 2013). The dialogue between group members furthered their understanding of their research topics while building a sense of community between novice researchers. I organized these notes chronologically according to the date of the graduate class.

**Phase two.** I also wrote extended field notes during each observation in Liza’s classroom as well as after each interview. Since my theoretical framework included the constructs of reflection, pedagogical content knowledge, and agency, my field notes also focused on whether I saw/heard aspects of those constructs in the interviews and observations. For example, when Liza mentioned reflecting before and during a lesson while I was observing, I wrote that in my field notes. All field notes were organized chronologically by type of notes, date, and teacher.

### **Artifacts**

I collected a variety of written documents in both phases of the study to help me understand how the teachers expressed aspects of their inquiry stances and to help document how those stances shaped literacy instruction. These materials also offered data that either added to or contradicted data that I collected from observations or interviews (Rossman & Rallis, 2003).

**Phase one.** In phase one, artifacts included copies of the teachers' research journals, final papers, and other classroom assignments. These documents were particularly useful as I sought to understand how they constructed their inquiry stances. For example, looking at their research journal entries over time revealed how at first they associated research as a requirement for graduation, but then some teachers began seeing it as something that they thought they should continue because it had such an impact on their teaching.

**Phase two.** In phase two, I collected lesson plans as well as items from Liza's research process such as her timeline, data charts, and email communications. These items served as artifacts for how she constructed and enacted an inquiry stance as she conducted research in her classroom. For example, reading through email communications with Liza over the course of the study helped me see the ways she began to verbalize her inquiry stance over time. The artifacts also contributed to my understanding of how research shaped Liza's literacy instruction. For example, her lesson plans revealed how her inquiry changed how she planned for guided reading, which was reflected in her lessons. None of the artifacts were produced just for me.

In both phases of the study I used many sources of data to understand how the teachers constructed and enacted an inquiry stance and how those stances impacted their literacy instruction. In addition, collecting multiple sources of data allowed me to see if they all support a similar conclusion (Maxwell, 2013) and strengthened the trustworthiness of my study. Great care was taken when considering the data collection and analysis procedures, knowing that the rigor of the study is judged, in part, by the



quality of these areas (Tracy, 2010). I discuss my process for data analysis in the next section.

### **Data Analysis**

In a case study, the researcher puts herself in the field to document, examine, and refine the understandings from the case. For me, that meant systematically searching the data to identify and/or categorize specific observation actions or characteristics that would help me understand how teachers constructed and enacted an inquiry stance first in the graduate class, and then Liza on her own. In addition, I sought to understand how those stances shaped literacy instruction. Preliminary data analysis occurred for both phase one and phase two during data collection in order to establish initial themes and inform future interview questions (Miles & Huberman, 1994). Ongoing data analysis included transcription and initial coding of interview data as well as initial analysis of observations and artifacts. Initial feedback from the teachers in the form of ongoing member checks was also an important part of data analysis.

One of the challenges of case study methodology is analyzing the large amount of data from various sources collected during the study (Merriam, 1998). To help with that challenge, I drew from the constant-comparative method (Glaser & Strauss, 1967). This methodology requires researchers to constantly examine data, looking for categories as they emerge from the data. They compare and contrast new data with previously collected data to reform categories, establish the boundaries of categories, summarize each category, and refine categories (Tesch, 1990). This process of comparison and reflection continues until the data become saturated.

I followed this process continuously so that as understandings arose, they could be enhanced, confirmed, or even discounted as a result of any new data that emerged. The way the data was compared throughout the study was by means of coding. The data from interviews, observations and artifacts were all similarly coded to ensure consistency of coding within the study. This allowed me to answer questions that arose from the analysis of and reflection on previous data (Tesch, 1990). The insights from that analysis process also helped inform future data collection. This process continued until I had a strong understanding of how teachers constructed and enacted an inquiry stance and how those stances shaped their literacy instruction.

The analysis of the data occurred in two parts. I examined the data in phase one and phase two of the study separately. In the next sections I highlight how I analyzed data during phase one of the study and during phase two of the study.

### **Phase One**

I began analysis in phase one of the study by gathering the observations of the graduate class, the semi-structured interviews with the five teachers, artifacts such as research journals, and class assignments. Next, I read through these documents multiple times in order to generate informal categories by searching for themes and patterns in the data (Corbin & Strauss, 2007). To guide me through this process, I used a general coding scheme prior to the study to limit and focus data collection (Miles & Huberman, 1994). This coding scheme served as initial codes to which I added others as I read through my data and included the constructs of reflection, learning, and agency, which were derived from the conceptual framework, the literature, and research questions. For example, I

read through the transcribed interviews and highlighted words and phrases that illustrated moments of reflection such as *I remember thinking . . .*; *I wondered . . .*; and *When I thought about . . .* This led to the subcategories of the broader themes such as analyzing previous pedagogy and examining definitions of teacher research.

My intention was to identify patterns within and across data sources with the aim of thoroughly understanding the case (Stake, 1995). Writing analytic memos helped me sort through my thinking and note patterns in the data. Creating analytic memos about each teacher was essential not only for data analysis, but also to help me reflect on my thinking. These memos, according to Maxwell (2013), actually facilitate analytic and insightful thinking. I used these memos as a way to member check with my participants by sharing them via email. We also discussed the memos in the last interview. In addition, I met biweekly with my advisor, who is familiar with literacy practices and teacher research, to summarize my data analysis, and discuss coding, as well as themes I saw developing.

I used analytic memos to help me maintain a balance between letting themes emerge and answering my research questions. At first, I had many broad themes but as I reexamined the data I collapsed codes. I also developed a set of criteria to further evaluate the data (see Table 6) listing emerging themes on one side and the first research question across the top. The following themes emerged related to how the teachers constructed and enacted an inquiry stance: reflection (analyzing previous pedagogy and examining definitions of teacher research); pedagogical content knowledge (synthesizing relevant literature and systematic inquiry); and agency (topic selection, influence of

support systems, and changing typical teaching). As a theme emerged, I checked it against my research questions to see if and how it provided understanding about my questions.

Table 6

Criteria for Further Analysis of Themes for Research Question #1

Themes	How teachers construct and enact an inquiry stance?
Analyzing Previous Pedagogy	
Examining Definitions of Teacher Research	
Synthesizing Relevant Literature	
Systematic Inquiry	
Topic Selection	
Influence of Support Systems	
Changing Typical Teaching	

I then charted these themes, the specific examples, the teacher associated with the code, and notes, recognizing that certain events or statements might be coded several ways. To refine my analysis, I created tables with defined themes (see Table 7), examples of data, and notes on how these data helped me answer my research question. This allowed me to return to the data several times to make sure that all relevant data were included.

To answer the second research question, related to the impact of an inquiry stance on literacy instruction, I first sorted out the data related to literacy instruction. For example, I focused on field notes regarding when the teachers spoke about their literacy

instruction in their research groups in the graduate class or when they wrote about their literacy instruction in class assignments such as their research journals. Then, I took that data and organized them in the same way I did for the data related to the first research question (into four categories: reflection, pedagogical content knowledge, agency, and other). As I examined the data, I had many broad themes. However, as I reexamined the data, I collapsed codes.

Table 7

## Example of Data Analysis for Research Question #1

Theme	Data	Teacher	Researcher Notes
Analyzing Previous Pedagogy	Described research as: changing the face of your teaching (Research Journal)	Jane	When thinking about her previous teaching Jane became more aware of the lack of nonfiction literacy opportunities she provided for her students. Her research made her aware of this.
Systematic Inquiry	I didn't feel so alone in my desire to become proficient using this method. Oddly, no one in my district seems to have heard of the method. However, I know it is being used with success in other parts of the country (Analytic Memo)	Tiffany	Seeing that others were using this method successfully added to Tiffany's confidence. It fueled her desire to share her own experiences with TPR with other ESL teachers. Her inquiry validated the way she wanted to teach.
Topic Selection	"I have to figure this out. I hope my research will help." (Interview 1)	Donna	Donna believed that the current basal/scripted program vocabulary program that her school used wasn't enough support for the vocabulary needs of her students. She chose her topic to address these concerns.

I also developed a set of criteria to further evaluate the data (see Table 8), listing emerging themes on one side and the second research question across the top. The following themes, showcased in Table 8, emerged related to how the teachers' literacy instruction was shaped by their inquiry stance: reflection (shifting views of literacy instruction); pedagogical content knowledge (close examination of literacy instruction and synthesizing new and old information about literacy instruction); and agency (extended application of literacy instructional practices and sharing literacy instructional practices). As a theme emerged I checked it against my research questions to see if and how it provided understanding about my questions.

Table 8

## Criteria for Further Analysis of Themes for Research Question #2

Themes	In what ways does an inquiry stance shape literacy instruction?
Shifting Views of Literacy Instruction	
Close Examination of Literacy Instruction	
Synthesizing New and Old Information About Literacy Instruction	
Extended Application of Literacy Instructional Practices	
Sharing Literacy Instructional Practices	

Once again, I charted these themes, the specific examples, the teacher associated with the code, and notes, recognizing that certain events or statements might be coded several ways. These charts helped me refine my analysis (see Table 9).

Table 9

Example of Data Analysis for Research Question #2

Theme	Data	Teacher	Notes
Close Examination of Literacy Instruction	“I think it just proved for me even more that I have to differentiate. There is not one kid that is working on the same thing” (Interview 1).	Liza	She was sharing how looking closely at her teaching, through the process of conducting research, made her aware of the diverse needs of her students.
Shifting Views of Literacy Instruction	<i>I have a more in depth understanding of who I want to be</i> (Exit Slip).	Tiffany	She was referencing her literacy teaching and how she wanted to try a new way of teaching ESL students that better aligned with her teaching philosophy but she was nervous. Her idea of who she wanted to be as a teacher shifted as she researched other ways of teaching.
Extended Application of Literacy Instructional Practices	She shared in an exit slip: <i>teacher research can be a solution for me and not for everyone.</i> (Exit Slip)	Jane	Jane extended what she learned about nonfiction texts into read alouds, shared reading and guided reading and she realized that as she could take action specifically to solve problems in her classroom.

After coding, I wrote individual case narratives. These case narratives allowed me to focus on individual case analysis and they helped me link data with theoretical constructs. In each narrative I began by writing about the teacher, her background, and the school in which she taught. Next, I added specific examples from the data (i.e., quotes from interviews, observational notes) to further illuminate that section of the

narrative. I then moved on to the focus of her research study, how she collected data, and what she found. Again, after writing the narrative, I added specific evidence from the data. I then focused on how the teachers' understanding of teacher research evolved over time and what impact conducting research had on them either personally or professionally. Finally, I concentrated on the impact of conducting research on their literacy practices, writing the narrative first and then adding examples from the data. My study used both description and categorization strategies so that the individual voices of each teacher were not lost in the analysis. Thus, I created mini-portraits that captured each teacher's experience with inquiry as an individual whole.

Looking at all of the analyzed data from each teacher helped me further develop an understanding of their classroom literacy practices and what role conducting teacher research played in their understanding of those practices. After each case was analyzed in phase one, I worked to develop an understanding of the cases as a whole. I began by looking for patterns across the five cases. Initially, I looked for patterns that were common to all five cases (see Table 10). I did this by rereading each individual case narrative and noting patterns that were particularly similar.

I also reread the cases to note patterns that were similar to several of the cases but not all of them. For example, I noted patterns related to administration support of inquiry that was common within two of the individual case narratives, but not the other three. This cross case analysis also allowed me to see how the individual teacher themes established earlier related or contradicted each other. Further analysis revealed additional patterns and themes that emerged across cases. Additional information related to the



cross case analysis is found in Chapter IV because that chapter focuses on the findings related to phase one of the study. I focus on cross case analysis rather than each case because it offers another perspective.

Table 10

Example of Cross Case Analysis

Liza	Jane	Tiffany	Donna	Kate
Believes that teacher research improves literacy instruction	Believes that teacher research improves literacy instruction	Believes that teacher research improves literacy instruction	Believes that teacher research improves literacy instruction	Believes that teacher research improves literacy instruction
Believes that it is challenging but not impossible to wear the hats of teacher and researcher simultaneously	Believes that it is challenging but not impossible to wear the hats of teacher and researcher simultaneously	Believes that it is challenging but not impossible to wear the hats of teacher and researcher simultaneously	Believes that it is challenging but not impossible to wear the hats of teacher and researcher simultaneously	Believes that it is challenging but not impossible to wear the hats of teacher and researcher simultaneously

As I mentioned earlier, analysis from phase one assisted me in developing an observation protocol in phase two of this study. In addition, it led to a more sophisticated understanding of how teachers constructed and enacted an inquiry stance. Thus my analysis of phase one data directly impacted the data I collected and analyzed in phase two.

## Phase Two

The second part of my data analysis involved examining the data from phase two of the study. My initial analysis involved content analysis of interviews, observations, artifacts, and field notes. I read and reread all of the data and identified instances where Liza seemed to construct and enact an inquiry stance. While reviewing notes, I wrote comments in the margins based on the following questions: (a) how does reflection impact her inquiry stance?; (b) how does pedagogical content knowledge shape her inquiry stance?; (c) how does agency shape her inquiry stance?; and (d) what else seems to be shaping her inquiry stance? Examples of these notes include: *Liza uses sticky notes to reflect in action on action* or *Liza is taking a leadership role during this meeting*. These notes helped me identify relevant data, which I coded as themes and organized electronically in a matrix to make searches, sorting, and retrieval easier. The following themes emerged related to how Liza constructed and enacted an inquiry stance: reflection (reflecting about students and contemplating feedback), pedagogical content knowledge (valuing all data and meeting students' needs), and agency (leading the way and sharing research).

To refine my analysis, I created tables with defined themes (see Table 11), examples of data, and notes on how these data helped me answer my research questions. This allowed me to return to the data several times to make sure that all relevant data were included.

Table 11

Example of Data Analysis for Research Question #1

Theme	Data	Researcher Notes
Contemplating Feedback	“It really makes you look at yourself as a teacher a little more in depth than a teacher who is not doing research” (Interview 1)	Conducting teacher research first in the graduate class and this year on her own, reminded Liza to take time to look at her own teaching practices.
Valuing All Data	“I am more observant and I internalize things better. Oh, that person needs to work on this. I am able to notice a lot more things” (Interview 2).	Although test data is important I see Liza becoming more in tune with her students and using her own observations to inform her instruction. This is something that has happened slowly over time as she continues to research.
Leading the Way	Liza posed the question to her colleagues about their class growth. None of them were able to answer. Liza in contrast had these numbers already figured and each student is color coded for easy reference on a sheet she brought with her. (Observation)	When Liza asked the other teachers about class growth she essentially “called them out” on their lack of preparedness for the meeting and their lack of knowledge about their students reading levels. She is trying to get everyone on the same page through these actions.

I also looked at the data for themes related to literacy instruction to assist in answering my second research question: “In what ways does an inquiry stance shape literacy instruction?” I used the broad themes that were used to understand her inquiry stance to analyze specific moments from her guided reading instruction. These themes included reflection, pedagogical content knowledge, and agency. I examined her literacy instruction, specifically guided reading, over the five months during which time I saw her

teach decoding strategies, how to construct sentences, and support students with retelling a story verbally and through writing, just to name a few. Once again, I reviewed all the data and made notes in the margins. For example, I noted in the margins on several sets of field notes that Liza specifically used noticing during guided reading, and based on these noticings she altered her instruction in the moment. These notes helped me identify salient themes embedded within each guided reading lesson. I then charted the themes and the specific examples recognizing that certain events or statements might be coded several ways. These charts helped me refine my analysis (see Table 12).

Table 12

Example of Data Analysis for Research Question #2

Theme	Data	Notes
Reflection	She noted on her lesson plan how differently the students were responding to each other. Liza also realized that they were not always using the words in the beginning, middle and end in their retelling.	Liza altered her lesson plan to specifically generate ways for the students to interact more with each other in hopes that would make them feel more comfortable with her and the group.
Pedagogical Content Knowledge	As the students were writing, Liza noticed that although placed in the same group according to their reading levels, there was a big variation in their writing ability just based on how they wrote sentences.	Liza noticed what skills her students had mastered and which ones they still needed to work on. This type of informal assessment furthered her understanding of her students' knowledge and helped her plan and alter her teaching accordingly.

Table 12

(Cont.)

Theme	Data	Notes
Agency	<p><i>Can you remind me what are some of the things that live in the sea?</i></p> <p>The students shared answers and she wrote their answers on the board. As they share the animal names, Liza had them go back and refer to the page with that animal</p>	<p>Liza had the student go back into the text to check information. This is a new strategy for her to teach students since she is not used to using nonfiction texts during guided reading. It is an example of agency because she adapted how she has taught guided reading in the past.</p>

In phase two, I focused on analysis of Liza's case. This included in-depth analysis of the context of her school, and who Liza was as a teacher and as a researcher. Similarly to phase one, I created a mini portrait of Liza. I first wrote a narrative description. Next, I added specific examples from the data (i.e., quotes from interviews and observational notes) to further illuminate that section of the narrative. I then moved on to the focus of her research study, how she collected data, and what she found. Again, after writing the narrative, I added specific evidence from the data related to how Liza continued to construct and enact an inquiry stance in this phase of the study. I also included evidence related to the constructs of reflection, pedagogical content knowledge, and agency as they shaped or were shaped by her inquiry stance. Finally, I concentrated on how her inquiry stance shaped her literacy practices. I read and reread Liza's narrative to be certain that it created an accurate portrait of her in phase two of the study.

### **Limitations**

Qualitative researchers value the “messiness of the lived world” (Rossman & Rallis, 2003, p. 9). Part of that messiness arises because as research instruments, qualitative researchers become part of the process through each choice they make (Merriam, 1998), which can be a limitation of this type of research. Although the ultimate purpose of qualitative research is learning (Rossman & Rallis, 2003), my biases may shape the interpretations of the data. Hammersley and Atkinson (1995) note that it is impossible to eliminate the influence of the researcher. The goal of addressing researcher bias is not to try to eliminate it, which would mean throwing out one’s theories and beliefs. Instead, the purpose is to communicate how one’s values and expectations may influence the researcher’s interpretation of the data.

Another limitation in both phases of this study was my existing relationships with each teacher. Our relationship as instructor/student very likely influenced the way I observed and interacted with the teachers, and it may also have impacted how and what the teachers shared during the interviews. During my observations in the graduate class and then in Liza’s classroom, the teachers may have felt that I was judging the way they taught and/or the way they conducted their research. However, I think that my weekly presence in the graduate class and in Liza’s classroom helped them feel more comfortable.

The small number of case studies in this study was a limitation because it limited the overall data gathered. The lack of guidance in the literature about how to conceptualize an inquiry stance was also a limitation because there was not as much evidence in the existing literature to guide this study compared to if, perhaps, I had

chosen a different theoretical framework. In addition, as a novice researcher, the large amount of data associated with case studies was also challenging to reconcile (Duke & Mallette, 2011). Despite these limitations, the strengths of my study included thick rich description, data collection focused on individuals emphasizing their voices, and an accessible explanation to others in the way the data are presented and explained.

### **Role of the Researcher**

I am a White, middle class, female graduate student who is an experienced teacher researcher, and that lens influenced my interpretations of each case study. I am similar to the teachers in this study because like them, I taught for several years before attending graduate school and then continued teaching once I received my Master's degree. All but one of the teachers in my study were also White, middle class, women although a bit younger than my 40 years.

I taught elementary school for seven years and during that time I not only was able to successfully conduct research in my classroom with my students, but what I learned impacted my teaching. I felt empowered as a result of creating new understandings about my teaching. My colleagues and administrators were curious and supportive of my findings. However, I recognize the experiences I had with teacher research are not the same for the teachers in this study. I attempted to remain open to the possibility that the teachers may not take on an inquiry stance, or if they did it may look different than what I imagined. My experience as a teacher researcher, and in phase one a co-instructor in the class, impacted my analysis of the data I collected. This insider perspective might have shaped the research, for example, by skewing my observations of

the graduate class. However, I tried to respect the teachers' various perspectives and experiences with teacher research and the way they constructed and enacted an inquiry stance. To address these concerns, I talked with each teacher about the study and answered any questions they had. In addition, I emphasized that I wanted to learn about the ways they conducted research within and outside the requirements of a graduate course, and that the purpose of my study was to share my understandings with other teacher educators. I took these measures to address any biases that I brought to the research.

The steps I outline next were intended to further the trustworthiness of my study, and address the limitations of this study.

### **Trustworthiness**

I purposefully chose the heading "trustworthiness" for this section because I believe the term best represents my worldview and understanding of qualitative research. The trustworthiness strategies that I used were consistent with the philosophical assumptions that align with qualitative research (Merriam, 2002). My goal was to make my study as trustworthy as possible so that others could use the knowledge generated by the study. To do this, I had to constantly examine my assumptions about the context, data, and participants throughout the study.

Generating an audit trail—describing how the data were collected and analyzed—is important because the more detailed and transparent the methods used, the more trustworthy the study. Merriam (2002) describes an audit trail as a "running record" of one's interaction with the data as they are analyzed and interpreted. Collecting a



significant amount of data over two different six-month periods allowed me to check and confirm my observations and inferences (Maxwell, 2013). Repeating observations and interviews over time helped lessen the chance that I generated premature theories.

Another benefit of collecting data over a period of time was that eventually the emerging themes and patterns began to feel saturated, meaning that no new information was being uncovered. This was an indication that I engaged in the data collection phase long enough to ensure the in-depth understanding that I was looking for (Merriam, 2002).

I also drew from Lincoln and Guba's (1985) work to enhance the study's trustworthiness. Each of the following steps (triangulation, member checking, peer debriefing, and reflexivity) were necessary to conduct and complete the most trustworthy study possible.

### **Triangulation**

By collecting multiple *forms* of data such as semi-structured interviews, observations, and artifacts, in both phases of the study, I was able to triangulate data (Denzin, 1970). This helps demonstrate that the data reported and interpretations made were accurate (Eisenhart, 2006). It is important to also use several *methods*. For example, in phase one of the study I took notes during observations of the graduate class and I interviewed participants. In phase two, I observed Liza's literacy lessons and also conducted semi-structured interviews. Triangulating data sources and methods provided various perspectives and assisted in strengthening my findings.

### **Member Checking**

Because my participants were teacher researchers, they were familiar with the process of member checking (Lincoln & Guba, 1985). Putting this process into place allowed me to systematically get feedback from the participants about the data and the conclusions I was making. In this study, member checking was done both formally and informally. In phase one, I provided data (i.e., transcripts from interviews, observation field notes, etc.) and notes from data analysis to each participant so that they could comment on their words and actions. Informal opportunities for member checking also arose during the three semi-structured interviews. In phase two, I shared transcripts from interviews, notes from observations, and we often talked about the data I was collecting when I visited her classroom. In addition, member checking was utilized when I analyzed artifacts such as Liza's lessons plans, so that my interpretations of these artifacts best represented the participants.

### **Peer Debriefing**

As the sole researcher for this study, peer debriefing was essential to further trustworthiness (Creswell, 2013). The structure of the doctoral program is ideal because it provided a built-in peer review system as I worked with my advisor and meet bi-weekly to analyze data. My advisor helped identify potentially overestimated and/or underestimated points, vague descriptions, and biases. For example, after coding data in phase two, I determined that a particular set of data fell under the theme autonomy, but my advisor helped me realize that another theme, making control/autonomy, was more specific and representative of the data. In addition, I met regularly with a group of

doctoral students who served as critical friends. Because they were also working on their dissertations, we talked about our research and offered each other insights. Peer debriefing helped me become more aware of my own views regarding the data.

### **Reflexivity**

Lincoln and Guba (2000) call the process of reflecting on oneself as the researcher, reflexivity. Reflexivity is critical to my success as a researcher now and as I continue my career. I did this by keeping a detailed research journal throughout both phases of the study. This journal held my thoughts, concerns, connections, and reflections as they related to the data collection and ongoing analysis. As someone who enjoys journaling, I welcomed the opportunity to take time to record my thinking throughout the study.

Being reflexive is one way to keep biases (i.e., being an experienced teacher researcher and a former elementary teacher) in check as well as tracking the precautions taken to keep them in check (Duke & Mallette, 2011) because a researcher's subjectivity is in play during the entire research process (Peshkin, 1988). For example, keeping a research journal and being reflexive kept me aware of my subjectivities, one of those being my own previous experience as a teacher researcher. This also shaped my interpretations of the data because I was able to reflect on paper and look back on those reflections to see how my understanding changed over time. Journaling also opened up potential biases as I reflected on the teachers' inquiries and the struggles they faced which were at times different and similar to what I faced as a classroom researcher. Thus, reflexivity was an essential tool to address issues of positionality, and led to my

conscious decision to include triangulation, member checking, peer debriefing, and reflexivity throughout this study.

### **Chapter Summary**

A qualitative methodology using Stake's (1995) collective case study design was used to examine how teachers, first in the graduate class and then Liza in her own classroom, constructed and enacted an inquiry stance and what impact that stance had on their literacy instruction. Data sources for this study included semi-structured interviews, classroom observations, field notes, and artifacts. The data were analyzed using coding procedures and constant-comparative analysis (Glaser & Strauss, 1967) to support emerging themes.

In the opening quote, Jane recognized teacher research as a tool "*to challenge my students and enhance my instruction.*" For my research, case study was the methodology I chose to further my understanding of teachers' inquiry stances. I welcomed the opportunity to challenge my own beliefs and enhance my perceptions of classroom teachers conducting research.

In the next chapter, I highlight the findings from phase one of the study, which sought to understand (a) In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research?; and (b) How does an inquiry stance shape their literacy instruction? The purpose of this chapter is to provide thick descriptions of the ways the teachers in the graduate class began to develop an inquiry stance and how that shaped their literacy instruction.

## **CHAPTER IV**

### **FINDINGS FROM PHASE ONE: FIVE TEACHERS LEARN TO RESEARCH**

Teacher research can change you. It is about real problems, questions and concerns. ~Donna

Donna's quote illustrates what is at the heart of an inquiry stance, which is discovering answers to questions that matter most and will make the biggest impact in a particular teacher's classroom. An inquiry stance is a theoretical framework that helps to explain the ways some teachers approach their teaching (Cochran-Smith & Lytle, 2009). When teachers conduct research in their classrooms they may begin to take on many of the characteristics and behaviors of an inquiry stance (Nolan & Hoover, 2004). Some of these characteristics include continuously asking the following questions: (a) What am I doing?; (b) Why am I doing it that way?; (c) What impact is it having on learners?; (d) How might I do things differently?; and (e) If I did things differently, what impact might it have on learners? (p. 144). It is through such questioning that teachers with an inquiry stance become adaptive experts rather than routine experts (Nolan & Hoover, 2004).

The first phase of this case study examined how teachers took on an inquiry stance within the context of a graduate class and how those stances shaped their literacy practices. The purpose of this chapter is to (a) present the findings and analysis of their stances using the constructs of reflection, pedagogical content knowledge, and agency; and (b) present the findings and analysis of how teachers' literacy practices were shaped

by their inquiry stances. The findings from phase two, in the next chapter, focus on Liza who agreed to be interviewed and observed the year following the Teacher Research/Leader course.

Before discussing the findings, I present each teacher researcher's question in Table 13). These questions represent teachers' purposes for inquiry. Without these questions, the teachers would not have had the opportunity to construct or enact an inquiry stance over the year.

Table 13

Teacher Research Focuses

Teacher	Teacher Research Question
Liza	How does using writers' workshop impact students' writing ability and feelings towards writing?
Kate	How does the use of data notebooks motivate students?
Jane	How does majority implementation of nonfiction text affect reading and writing in the K–1 classroom?
Donna	What is the best way to support students' vocabulary development?
Tiffany	In what ways does the teaching model TPRS (teaching proficiency through reading and storytelling) support young students' comprehension?

### Overview of the Findings

The immediate impact of the graduate class on teachers' inquiry stances was determined through analysis of interviews, observations, and artifacts, such as classroom assignments. Specifically, the constructs of reflection, pedagogical content knowledge,

and agency were used to guide the analysis. Several themes emerged within those constructs and across data sources. These themes assisted in answering the following research questions:

- ❖ In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research?
- ❖ How does an inquiry stance shape their literacy instruction?

### **An Inquiry Stance**

To investigate how each teacher took on an inquiry stance, evidence from multiple data sources was used. First, I provide a table to organize the findings from phase one and provide an overview of the cross case analysis. Table 14 illustrates evidence from the cases and highlights how teachers constructed and enacted an inquiry stance.

Table 14

Cross Case Analysis of Inquiry Stances

	Jane	Donna	Liza	Tiffany	Kate
Reflection	Analyzed previous pedagogy	Analyzed previous pedagogy	Analyzed previous pedagogy	Analyzed previous pedagogy	No Evidence
Reflection	Examined Definitions of Teacher Research	Examined Definitions of Teacher Research	Examined Definitions of Teacher Research	Examined Definitions of Teacher Research	Examined Definitions of Teacher Research
Pedagogical Content Knowledge	Synthesizing Relevant Literature	Synthesizing Relevant Literature	Synthesizing Relevant Literature	Synthesizing Relevant Literature	Counter Example

Table 14

(Cont.)

	Jane	Donna	Liza	Tiffany	Kate
Pedagogical Content Knowledge	Systematic Inquiry	Systematic Inquiry	Systematic Inquiry	Systematic Inquiry	Systematic Inquiry
Agency	No Evidence	Topic Selection	Topic Selection	Topic Selection	Topic Selection
Agency	Influence of Support Systems	Influence of Support Systems	Influence of Support Systems	Influence of Support Systems	Influence of Support Systems
Agency	Changing Typical Teaching	Changing Typical Teaching	Changing Typical Teaching	Changing Typical Teaching	Changing Typical Teaching

Next, I share the subcategories within the broader themes of reflection, pedagogical content knowledge, and agency. Within the theme of reflection, analysis revealed the themes of analyzing previous pedagogy and examining definitions of teacher research. Within the theme of pedagogical content knowledge, subcategories included insights from synthesizing relevant literature and systematic inquiry. Agency was further refined to include the subcategories of topic selection, influence of support systems, and changing typical teaching. In the next section, these themes are described and then used to provide answers to the first research question in phase one.

**Reflection.** Research on inquiry stance illustrates how reflection is a dialogue of thinking and doing (Cochran-Smith & Lytle, 2009; Schön, 1987). In this study, the teachers engaged in reflection as a continuous process. This encouraged them to think about their own experiences, their teaching, and their students as they engaged in



research. Throughout the year-long graduate course, the teachers engaged in various reflective activities. These included small group conversations with their research group, completing exit slips after each class, writing in their research journal, and composing analytic memos. The teachers also had an opportunity to reflect during each of the three interviews with the researcher. Within these reflections, teachers analyzed decisions that they made about practice, related theory to practice, and examined what teacher research meant to them and their teaching practices.

To systematically analyze how reflective activities shaped their inquiry stances, I used a filter to guide my analysis. This filter included (a) when teachers analyzed decisions they made about practice; and (b) when teachers related theory (i.e., something they read from class) to practice. Analysis of data revealed several themes related to the construct of reflection as part of an inquiry stance. Specifically, reflection occurred in the areas of analyzing previous pedagogy for four of the five teachers and examining definitions of teacher research was seen in all five teachers.

***Analyzing previous pedagogy.*** Through various reflective practices, the teachers examined past teaching practices. For example, in a written reflection in her research journal, Tiffany shared that teacher research *facilitates a closer observation of each student and their particular need*. As an ESL teacher, Tiffany worked with many students each day. As stated in her journal, when Tiffany focused her attention on a small group of students, she realized that her understanding of her students was wide but not deep. Reflecting on her previous pedagogy fostered this “aha moment” and acted as a catalyst for Tiffany to reflect on how to individualize instruction. Tiffany’s research also

challenged her to examine the effectiveness of instruction related to literacy. For example, Tiffany's research showed that using TPRS (Teaching Proficiency through Reading and Storytelling) increased her students' engagement but she did not see as much student growth as she was expecting. In an interview, Tiffany explained, "Perhaps we just jumped into the more fun parts and didn't do the more tedious parts" (Interview 2). This quote highlights how reflecting on her previous pedagogy caused her to question how she was teaching (i.e., favoring fun activities over having the students use the strategy of repetition to help them learn the material). This realization challenged Tiffany to think about how she wanted to alter her teaching in the future, which she shared in our final interview by saying, "I am already thinking about what I want to do differently next year" (Interview 3).

Jane echoed Tiffany's thoughts as she shared in an interview that research made her "more accountable and responsible" (Interview 2). As a K-1 teacher, Jane stated in the interview that she often felt bogged down in the day-to-day classroom operations, such as the paperwork (Interview 2). Jane's research, however, helped her engage again in reflection, something she admittedly enjoyed (e.g., through journaling) while an undergraduate student, but had moved away from soon after she entered the classroom. Specifically, Jane reflected in her final analytic memo about the type of questions her students posed after she read nonfiction texts. Until she began researching this topic, she was unaware of the different types of questions her students asked based on the type of text she read (Analytic Memo). By reflecting on her previous pedagogy and comparing it to her new understanding, Jane was able to better support her students' understanding of

both types of text. For instance, Jane found that it was more effective to have students spend time reading, processing and discussing multiple nonfiction texts centered on one main topic before having students produce one cumulative piece of writing, something she had not done in the past. Engaging in research, then, helped her reflect on her previous pedagogy, allowing her to make decisions about potential changes she might make to her teaching in the future.

Jane, who described research as *changing the face of your teaching* (Research Journal), also became more aware of the amount of nonfiction literacy opportunities she provided for her students. Reflecting on this enabled her to “break somewhat out of my comfort zone and laziness of merely choosing fictional texts that I have chosen year after year because they included some of the students’ favorite characters and I know the students tend to enjoy them” (Analytic Memo). This realization helped Jane see that some of the instructional choices she was making were based on student choice, not standards. This reflection assisted her in looking closer at her teaching practices and instructional materials to see how they aligned with state standards.

Four out of the five teachers in this study shared that prior to taking the graduate class, they did not take time to reflect daily as they had perhaps earlier in their teaching careers. Conducting research reminded them of how specifically reflecting on previous pedagogy can create a sense of forward motion in teaching. This is central to an inquiry stance because reflection allows teachers to recognize what is and is not working in their classroom (Nolan & Hoover, 2004). Reflection also assists teachers in making decisions

about how to change those practices that are not successful in their classroom (Cochran-Smith & Lytle, 2009).

***Examining definitions of teacher research.*** For four of the five teachers, this was their first attempt at research. As the teachers reflected over time about how they defined research, it helped them realize how much they learned about doing research. The following examples highlight the ways in which reflection shaped the dynamic nature of their definitions. In particular, the case studies illustrate how their evolving definitions challenged the teacher researchers to reflect on their own teaching and research process.

Through the graduate class, the teachers refined what it meant to be a teacher researcher. This was also reflected in how their inquiry stances shifted, which is important because it illustrated their depth of knowledge about teacher research and illuminated that personal understanding could arise from connecting theory to practice. The graduate class fostered and required this guided reflection through the use of weekly exit slips. However, Kate's reflections extended beyond the professor-pleasing standard responses as she revealed her vulnerable side (e.g., lack of confidence). Along with the exit slips, in an interview, Kate reflected, "I always thought of research as something that someone else did" (Interview 1). Kate's statement reveals that prior to this experience she defined a researcher as someone other than herself. This illustrates her lack of knowledge and confidence in this area. However, in a written reflection composed later in the course, Kate illustrated that for her, research was about trying to find out what is going on in her classroom and why it was happening (Research Journal). By the end of

the year, Kate's confidence as a researcher had grown and in our final interview she shared, "Now I believe that anyone, including myself, can do research in their classroom" (Interview 3). This quote shows how Kate's definition of research evolved over time. She now thinks of researchers as being a more inclusive group that incorporates teachers. This expanded definition is important because it illustrates how her definition of research changed over time, thus illuminating how her understanding of research evolved. Kate's increased confidence as a researcher was due in part to engaging in guided reflection which helped her sort out her definition of what research is and who does it.

Jane's lack of prior experience with research initially impacted how she defined research. For example, she did not think of teachers as researchers. Like Kate, she initially felt "very daunted and I wondered to myself if this was even something that I could do" (Interview 1). Jane's honest admission shows her lack of confidence in this area. Even though this was her last class, the fear of being a researcher almost made her want to quit the program. Jane used her research journal to reflect on these thoughts and move herself beyond wanting to quit. For example, in her research journal she wrote things like: *I can do this*; and *I am not going to give up*. Like many of the teachers in the class, she eventually became more comfortable with thinking of herself as a researcher. This was seen as the semester progressed, for example when she wrote in her research journal: *Teacher research is getting easier* and *Jane = teacher researcher*. Jane's definition of research eventually included teachers as researchers rather than thinking that only outsiders studied teaching.

In contrast, Tiffany's prior experience with research impeded how she defined teacher research. Her previous research experience involved number crunching English as a Second Language (ESL) student data to make decisions about class schedules. During the graduate class, Tiffany struggled with a more qualitative form of research. For example, in an interview, Tiffany reflected, "I am learning that the end result is probably never going to be quite what I imagined it to be in the beginning" (Interview 2). This statement illustrates how Tiffany's definition of research changed as she experienced qualitative inquiry. Prior to this class, Tiffany saw research as proving a hypothesis rather than learning as you go. Unlike Jane, who had never conducted research, Tiffany's reflection revealed that giving up some level of control would prove the most challenging. By the end of the year, Tiffany's reflections revealed that she saw research as a "journey" (Research Journal). When she examined her journal entries from the beginning of the year, Tiffany recognized how her understanding of the definition of research had evolved (Interview 3). In her final analytic memo she wrote: *It's fun and exciting and you never really know what to expect along the way or where your research might lead you* (Analytic Memo). Tiffany's definition of research evolved from seeing it as only quantitative to accepting qualitative methodologies as well. This is important because it helped Tiffany realize that while researching in her classroom, she could use both types of data to help her understand and meet the needs of the students with whom she works.

***Summary of reflection.*** These examples highlight how analyzing previous pedagogy and defining research were important parts of reflection within an inquiry

stance for the teachers in phase one because it required teachers to make sense of teacher research on their own terms. As a result, teachers' understanding of how they previously taught and their definitions of teacher research shifted over time. Typically, reflection that teachers engage in is not visible; however, when it is part of an inquiry stance, it becomes intentional and often visible as well (Dana & Yendol-Silva, 2004). The reflective activities the teachers engaged in during the class helped raise the visibility and intentionality of their thinking (i.e., while examining definitions of teacher research and while analyzing previous pedagogy). This is important because it fostered an intentional "reflective habit." In this study, a reflective habit was seen in the examples of Kate, Jane, and Tiffany as they engaged in thinking about what it means to be a researcher and teacher, which helped them take steps toward constructing and enacting an inquiry stance.

**Pedagogical content knowledge.** Teachers can construct pedagogical content knowledge when they engage in inquiry. This is possible because inquiry allows teachers to look at the bigger picture of education rather than thinking of pedagogy and content as separate entities (Cochran-Smith & Lytle, 2009; Shulman, 1987). In this study, this was seen in several ways for all five teachers. For example, part of the requirement for the graduate class was that students write a literature review on their research topic. This required them to seek out and read professional and practitioner resources. Although this added to their pedagogical content knowledge, so did engaging in systematic inquiry. In fact, the teachers noticed that collecting data seemed to have a big impact on their understandings.

To systematically analyze how pedagogical content knowledge shaped inquiry, I used a filter to guide my analysis. This filter included (a) when teachers illustrated increased depth of knowledge about both the content and pedagogy of their practices; and (b) instances after reading relevant literature when teachers responded about pedagogy or content. The following themes emerged from this analysis: (a) synthesizing relevant literature; and (b) engaging in systematic inquiry related to the construct of pedagogical content knowledge.

***Synthesizing relevant literature.*** This theme represents how and what the teachers learned as they read scholarship that shaped how they thought about their topic. Some were comfortable with educational journals such as *The Reading Teacher*, but struggled with the denser reading materials found in professional journals such as *Reading Research Quarterly*. In addition, this was the first time that many of the teachers were asked to read research from a researcher's perspective. As the teachers synthesized their previous understandings of their research topics and added new information, they added to their pedagogical content knowledge, learning about their topic and their teaching. This learning furthered their inquiry stances by expanding their thinking and led several teachers to question their teaching.

For example, Tiffany shared that her enthusiasm for her topic grew as she began reading articles by other researchers on TPRS (Teaching Proficiency through Reading and Storytelling). In one of her research memos, Tiffany wrote: *I didn't feel so alone in my desire to become proficient using this method. Oddly, no one in my district seems to have heard of the method. However, I know it is being used with success in other parts of*



*the country*. Synthesizing the literature supported Tiffany's pedagogical content knowledge because it shaped what and how she wanted to teach. Meaning, as a result of making sense of the literature on TRPS, Tiffany gained more understanding about how to use this method effectively with ESL students (i.e., having the students perform their stories to further foster engagement in the literacy task). In addition, it fostered her inquiry stance because it validated that research was helping her grow as a teacher.

Kate, on the other hand, became quite frustrated when she could not find any research on the topic of data walls or notebooks. In an interview, Kate explained, "This really surprised me because they are making us do this stuff because supposedly it has a positive impact on your kids' test scores, but I couldn't find anything about it in the literature" (Interview 1). This quote shows that although she was told to implement this practice in her classroom, the lack of research on the topic made her question her administration requiring the use of data walls. Kate ended up reading about goal setting and what she learned made her want to talk about goal setting with her students. For example, she met with each student and had them set a goal for the number of first-grade sight words they wanted to learn within a given time frame (Research Journal). This helped Kate be more focused in helping individual students reach specific goals. Kate's understanding of data walls/notebooks was shaped by the lack of literature on her topic. She was not able to learn as much as she wanted to about data walls/notebooks and she was not able to find justification for this practice in the research. This led to Kate questioning the school-wide initiative. In this example, Kate was not able to synthesize the relevant literature, and as a result, was not able to build her pedagogical content

knowledge related to her topic. This actually fostered her inquiry stance because it fueled Kate's desire to find out for herself, through teacher research, the impact of data walls/notebooks on her students.

The impact from Donna's synthesis of literature was seen in the transformation of her understanding of how to teach vocabulary. She admitted that she formerly taught vocabulary strategies in isolation (Analytic Memo). For example, first she would teach context clues and then word structure. However, through her readings, she discovered the following: *good readers and those with good vocabularies just don't know those strategies, they have knowledge of words* (Final Paper). This realization impacted Donna's bigger understanding of vocabulary instruction and made her want to make changes to how she was teaching this subject. Donna showed that she was willing to continue to build her pedagogical content knowledge, and that openness highlighted her potential to develop an inquiry stance because she actively constructed new understandings through the process of joining new and existing knowledge.

***Engaging in systematic inquiry.*** Engaging in systematic inquiry shaped how teachers gained pedagogical content knowledge from conducting research. When the teachers in this study engaged in inquiry, they were active and took personal responsibility for furthering their pedagogy and understanding of a particular content area. What distinguishes this subcategory from the previous one (synthesizing relevant literature) is that the data in this category all related to how teachers constructed their own knowledge rather than taking knowledge from another source. This type of learning is central to an inquiry stance because it highlights how teachers generate their own

understanding from their own research, thus building their pedagogical content knowledge.

For example, Liza shared that engaging in systematic inquiry helped her transition to relying on her own insights about her teaching. She admitted that in the past, she had relied on her administrators to give her feedback on her teaching and data to provide insight into her students' progress (Interview 3). Conducting research opened Liza to the possibility of strengthening her content and pedagogical knowledge in a way that she could control. For example, choosing a question that mattered to her, focusing on writer's workshop, and collecting evidence such as field notes and student work samples to answer that question fed Liza's confidence and drive in generating her own understanding (Analytic Memo).

Tiffany provided another example of gaining pedagogical content knowledge through systematic inquiry when she wrote in her final paper that research allowed her to *really focus in on an aspect where you want to see improvements and growth, instead of reading about someone else's research*. Tiffany's research strengthened her content knowledge about English Language Learners by adding to her understanding about the ways these learners process new information. In addition, it built pedagogy about the best way to teach linguistically diverse students by adding to her understanding about different types of strategies to support these students' literacy learning. In our final interview, Tiffany shared, "I learned that conducting research and taking time to analyze data is another way of learning about my students." This quote from Tiffany shows that teacher research provided her a new way to build her pedagogical content knowledge.

Tiffany's previous experience with research encouraged her to think of data in terms of numbers and statistics. Thus for this project, she felt the need to show everything in that format. "Now I realize that my observations of children really count as something and even if a score doesn't go up I can see their improvement and their engagement" (Interview 2). This was a key moment for Tiffany's inquiry stance as she began to value other data sources to inform her teaching, thus building her pedagogical content knowledge as she added to her understanding of the what and how of teaching. For example, as a result of using the TPRS method, Tiffany was able to identify gaps in students' knowledge because they showed up in their retelling of stories or their writing (i.e., they might use the wrong verb tense). Tiffany's research shaped her pedagogy because it made her more aware of students' skills and it provided a new way to address areas of weakness. This also shaped her content knowledge because as Tiffany learned more ways to support English Language Learners, she was able to utilize TPRS as a diagnostic tool. Systematic inquiry not only reaffirmed that TPRS was an excellent instructional method, it allowed her to strengthen her pedagogical content knowledge in an unexpected way. Thus, Tiffany learned more about content and pedagogy through the use of TPRS as an instructional and diagnostic tool which continued to foster Tiffany's desire to be highly flexible and use her teacher knowledge to meet her students' needs (Van Driel & Berry, 2012).

Kate revealed that as a result of her research, she felt more "up to date" about what her students knew (Interview 3). Kate was pleasantly surprised at this unexpected benefit of teacher research. When I interviewed her in March, she shared, "Most of them

have reached the goals that were set at the end of January and now are working towards new goals. So this tells me that the goal setting is having a positive impact on my students' learning" (Interview 2). Kate's systematic inquiry supported her pedagogical content knowledge in two ways. First, it strengthened her understandings of students' conceptions of the subject (goal setting) and second, it impacted how she viewed her teaching associated with the subject (students benefit from talking about and setting their own literacy goals). In addition, the findings from her systematic inquiry bolstered her confidence as a researcher.

For Jane, systematic inquiry helped propel the choice of her research topic. "Looking at their writing, I found that my students needed more exposure to nonfiction texts in order to fully support their arguments and opinions" (Analytic Memo). These noticings, along with the new state curriculum, made Jane think about the importance of having students justify their answers, something that in the past K-1 students have not been asked to do. Jane's inquiry stance was fostered by her systematic inquiry, which helped her problem solve ways to fix the "holes" in her teaching. In addition, the systematic inquiry supported her pedagogical content knowledge as she incorporated new strategies of teaching nonfiction text into her classroom.

***Summary of pedagogical content knowledge.*** The teachers in phase one of this study added to their pedagogical content knowledge by synthesizing relevant literature and engaging in systematic inquiry. Whether it was Jane's choice of topic, or Kate's realization that teacher research helped her "know" her students, each example in this section illuminated the various ways that building pedagogical content knowledge

through synthesizing relevant literature and systematic inquiry contributed to the teachers' inquiry stances. Educators can learn *from* teaching as well as learn *for* teaching (Darling-Hammond & Bransford, 2005). This was seen as Tiffany built her understanding of TPRS, which included discovering teaching approaches that fit the content and likewise, knowing how elements of the content could be arranged for better teaching. The teachers in this study revealed that pedagogical content knowledge is an important component of an inquiry stance as they remained open to new understandings about their practice and recognized that this understanding can come from different sources.

**Agency.** In educational research, agency is typically defined as the ability to take action, be effective, influence your own life, and assume responsibility for your behavior (Mezirow, 1981). In particular, educators draw from Holland, Lachicotte, Skinner, and Cain (1998), who state that agency occurs when people are able to “imagine and create new ways of being” (p. 5). Essentially, Holland and colleagues suggest that although individuals are shaped by their context, they can also shape their context and as a result, create possibilities for new ways of “being” within that context (e.g., a teacher). The literature linking agency and inquiry stance reveals how inquiry shapes teachers' agency (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Lieberman & Miller, 2001). This literature suggests that teachers enact agency because they want to make changes. For example, teachers practice agency when they take action to change something around them, whether it is a teaching practice or a meeting routine. In this phase of the study, the teachers were seen and heard practicing agency as they chose topics they thought would benefit their teaching or change the ways they taught based on the findings from

their research. This shaped their inquiry stance because it impacted how they wanted to take action.

To systematically analyze how teachers enacted agency as part of their inquiry stance, I used a filter to guide my analysis. This filter included (a) when teachers took an action, or talked about wanting to take action, based on the findings of their research; and (b) when teachers mentioned why they took action. The themes below show that how teachers enacted agency as part of their inquiry stance varied. Analysis revealed that for four of the five teachers, agency was displayed through the choice of their research topic, and all teachers felt the influence of support systems, and changed typical teaching.

**Topic selection.** Since the teachers chose the topic of their research, it was easy to see what they were interested in. This is a stark contrast compared to when teachers are mandated to research particular topics. Topic choice illustrates acts of agency because the topics illuminated what and how teachers wanted to change in their classroom and/or school. However, understanding why teachers chose these topics reveals much more. For example, four of the five teachers used research as an opportunity to learn more about an instructional method they were expected to use. In particular, Kate was asked to have her students keep a data notebook. She shared her reservations about this practice in an analytic memo: *This is the first time that I have ever had my students take notice of data. I have always kept it in a book that was for my eyes only.* Kate questioned this change and used teacher research to further investigate this mandate. Although Kate shared that she anticipated that the notebooks would be motivating to students because it was visual, she was anxious to see if this practice was

worthwhile, especially because she could not find any other research in the literature to support it (Interview 1). In this instance, Kate enacted agency because she used the findings from her research to better understand the expected norms at her school. Kate also displayed agency in her topic selection because she questioned what she was asked to do and took action to investigate how this practice impacted her students.

Donna also enacted agency when she chose her topic. Donna believed that the current basal/scripted program that her school used was not enough support for the vocabulary needs of her students. Therefore, Donna started her research with hopes that her findings would affirm that supplemental vocabulary instruction was needed (Interview 1). Donna introduced her students to word knowledge, word consciousness, and vocabulary strategies. She wrote about how these changes impacted her students in an analytic memo: *One of my students, who had a lot of elements of word consciousness, never used vocabulary strategies to build meaning, until she was explicitly introduced to context clues, word structure, and apposition and given opportunities to practice them in context of reading.* This example illustrates agency because it highlights how Donna was able to see the impact of the changes she made to her literacy instruction on a particular student. An inquiry stance involves teachers seeing themselves in new ways and for Kate and Donna, who taught in very different contexts, that was about making moves to change instructional norms within the schools they taught.

***Influence of support systems.*** The level of support that each teacher experienced at her school affected the amount of agency they enacted. Tiffany said that her principal was “gung ho” about her research despite the highly structured school environment



(Interview 2). With his support, Tiffany felt empowered to teach in a way (TPRS) that others were not and to research this way of teaching. Kate also had support from her administration because they “love anything that we do that is extra” (Interview 3). Support from administration helped foster Tiffany and Kate’s sense of agency by valuing their research and helping them feel they that they had something to contribute to their school community. With this support, the teachers took advantage of opportunities to question current practices (i.e., Kate’s concerns about the data notebooks/wall) as well as make changes in their practice (i.e., Tiffany incorporating TPRS strategies into her teaching).

The climate of Donna’s school shaped her inquiry stance by making her feel apprehensive about conducting research. Her principal was unfamiliar with teacher research and in her building, a Title 1 school, teachers were closely supervised by the principal, assistant principal, and the reading, math, and science instructional district coaches. According to Donna, no one was thrilled with the idea of her conducting research during the ELA, Math, or Science block (Interview 1). When I asked Donna why, she shared that they were afraid that her research would take away from instructional time. In fact, her administration made it clear that teachers should not stand out, meaning they should do nothing that drew attention specifically to them. Her administration considered teacher research as going against this expectation. Donna wrote: *My school’s administration style would have to shift for teachers to have freedom and ability to do teacher research* (Analytic Memo). When she first started teaching, Donna felt that she had to follow the mandates of her school and “be in a certain place

and page at a certain time.” However, she shared that as time went on she got good at “shutting my door and taking risks,” and her research helped her become more comfortable with doing this (Final Paper). This is an example of agency in action. Donna showed that small acts of agency in the classroom could make a difference in student learning. Her decision to take “risks” highlighted one way to enact agency. Donna learned to become her own cheerleader because support from her work environment was lacking. In summary, the impact of support systems on teachers’ agency varied depending on the teacher and the context of her school. However, it is clearly harder to be a teacher researcher with little support from one’s school.

Although her administration was supportive, Jane only shared “bits and pieces” of her research with her colleagues. “Sometimes I feel that because I am young and have less teaching experience than most of my colleagues, I feel I am not taken as seriously as I would like to be,” she shared during our first interview. However, her experience with teacher research made her feel more like a “master teacher” and “more confident in my own ability as a teacher.” Jane added, “Typically as a beginning teacher you tend to feel like you are not good at it yet and you have a lot to learn and I think that doing a research project makes me feel a little more empowered” (Interview 3). Although Jane made changes to her literacy instruction based on the findings from her research, she did not take any additional action because she felt uncomfortable sharing with her colleagues. This counter example highlights how Jane would have preferred to have a stronger support system at her school, and that support system may have bolstered her sense of

agency resulting in her taking action in a way that extended beyond the walls of her classroom.

***Changing typical teaching.*** Through the process of conducting research, several teachers embodied agency by actively changing their “typical” teaching practices. Findings from Jane’s research revealed that she was making some assumptions about her students. Jane shared this revelation when she wrote that her research *opened my eyes to what young students really are capable of* (Exit Slip). Jane shared, “To be honest, I worry that I may have held my students back in the past in terms of the amount of fiction that I exposed them to versus the amount of nonfiction texts that I allowed them to interact with” (Interview 2). Jane’s research helped her recognize that her typical teaching was not enough. She was capable of more and worked to identify teaching practices she wanted to keep and teaching practices she wanted to change (Interview 3). Jane embodied agency by first recognizing that her assumptions were impacting her teaching. Then she took action by incorporating more nonfiction texts into her classroom and retaining high expectations of all of her students.

Another example of changing typical teaching was seen in a memo Donna wrote: *I have realized my students have a higher self-efficacy than I thought they did. I notice my students need more opportunities for using rich vocabulary and exposure to texts can spark that.* Donna was certain that she would find out that the majority of her students lacked vocabulary strategies, word consciousness, and word knowledge. However, her research showed that the majority of them do, but not *all* of them do. Empowered with this new understanding of her students, Donna changed the way she typically taught

vocabulary to include the “best practices” she learned from reading about her topic (Interview 3). These changes impacted Donna because she became aware of the assumptions she was making about her students. Instead of assuming what they knew or did not know, she engaged them in more conversations and asked them directly about their understanding (Interview 3). This example shows how Donna exhibited agency by pushing against the norms she established about her students and actively making a change to her typical teaching practices.

***Summary of agency.*** The teachers displayed agency in different ways and were supported differently in their efforts. However, each example demonstrated how teacher research opened opportunities for these teachers to enact agency. The teachers used research as a tool; it was the catalyst that made them take action when before they may have only thought about making changes without taking action. As Holland et al. (1998) explained, it is important to pay attention to agency, even though it is “frail, especially among those with little power” (p. 5). Donna felt that she had little power, but she realized that even small changes in her classroom mattered. Agency involves taking action and it is central to an inquiry stance, because teachers with this stance are constantly questioning their practices and then taking steps to answer those questions through inquiry. This involves a different way of thinking, a habit of mind. In other words, teachers take responsibility for their behavior and make changes that impact their classroom and/or school.

***Summary of inquiry stance.*** The teachers in this phase of the study constructed and enacted an inquiry stance through reflection, examining pedagogical content

knowledge, and enacting agency. These findings support the work of Nolan and Hoover (2004) who suggest that teachers who engage in classroom research may adopt some of the characteristics and behaviors of an inquiry stance. Specifically, evidence illustrates that all of the teachers adopted some of these characteristics throughout the graduate course. Adopting such a stance has implications for the ways in which teachers incorporate new perspectives of teaching, or habits of mind, into their everyday professional practices.

For some teachers such as Tiffany, her stance was supported by administration and propelled forward by her revised definition of research that heightened her understanding of her students. For other teachers such as Kate, her inquiry stance was specifically related to determining if a “requirement” was worthwhile. Although she benefited from the experience, it was clear that this was “one and done” for Kate, who was happy to finish graduate school and this project. The different experiences between the two teacher researchers led me to the next chapter of the study that explores how one teacher continued to construct and enact an inquiry stance after graduation. However, before I explore Liza’s experience, I draw attention to the ways that an inquiry stance shaped the literacy instruction of the five teachers in phase one of this study.

### **Literacy Instruction**

This section presents the findings and analysis related to the second research question in phase one: How does an inquiry stance shape literacy instruction? This question is particularly important to me as a teacher educator and researcher dedicated to literacy education because the lens of inquiry stance provides another way to consider

what effective literacy teaching looks like (Lytle, 2000). As the above findings suggest, when teachers take on an inquiry stance they constantly reflect on their practices, demonstrate a sense of agency, and build their pedagogical content knowledge. Such habits of mind were fostered by their teacher research projects that opened opportunities for them to “observe, document, analyze the daily work of literacy teaching and learning as it occurs in and out of the classroom and school context” (Lytle, 2000, p. 702). The lens of teacher research provides another way to consider what effective literacy teaching looks like, which is what the teachers in this phase of the study did with support of the graduate class. The following quote from Liza highlights this point:

The research has shown me that I can’t teach writing whole group all the time. In the future I want to do more small group instruction. It would be so much more beneficial for my kids and it is so important to differentiate and really be able to help each child with what they need. I have found what worked for my kids and me. (Interview 3)

Liza’s words draw attention to the ways her literacy instruction was positively impacted by teacher research. In the following section, the other teachers’ similar sentiments are shared. This is important to note because regardless of whether the teachers continued with teacher research, their instruction was impacted in a positive way.

To investigate how each teacher’s inquiry stance shaped their literacy instruction, evidence from multiple data sources were used. First, I provide a table to organize the findings from phase one and provide an overview of the cross case analysis. Table 15 illustrates evidence from the cases and highlights how teachers’ literacy instruction was impacted as result of conducting research in her classroom.

Table 15

## Cross Case Analysis of Literacy Instruction

	Jane	Donna	Liza	Tiffany	Kate
Reflection	Shifting Views of Literacy Instruction	Shifting Views of Literacy Instruction	Shifting Views of Literacy Instruction	Shifting Views of Literacy Instruction	Shifting Views of Literacy Instruction
Pedagogical Content Knowledge	Close Examination of Literacy Instruction	Close Examination of Literacy Instruction	Close Examination of Literacy Instruction	Close Examination of Literacy Instruction	Close Examination of Literacy Instruction
Pedagogical Content Knowledge	Synthesizing New and Old Information about Literacy Instruction	Synthesizing New and Old Information about Literacy Instruction	Synthesizing New and Old Information about Literacy Instruction	Synthesizing New and Old Information about Literacy Instruction	Synthesizing New and Old Information about Literacy Instruction
Agency	Extended Application of Literacy Practices	Extended Application of Literacy Practices	Extended Application of Literacy Practices	No Evidence	No Evidence
Agency	Counter Example	No Evidence	Sharing Literacy Instructional Practices	Sharing Literacy Instructional Practices	Sharing Literacy Instructional Practices

Next, the findings are presented as subcategories within the broader themes of reflection, pedagogical content knowledge, and agency. These included (a) reflection related to shifting views of literacy instruction, (b) close examination of literacy instruction and synthesizing new and old information about literacy instruction related to pedagogical content knowledge, and (c) extended application of literacy practices and sharing literacy instructional practices related to agency. These themes are described and then used to provide answers to the second research question.

**Reflection and literacy instruction.** Reflection is a significant component of inquiry because it encourages teachers to think about themselves in terms of research and teaching (Millis, 2003). This is particularly important in regards to reflecting on literacy instruction because reflection played a key role in helping the teachers see what they wanted to change about their instruction. Reflection, combined with inquiry, supports teachers in providing literacy instruction in more explicit and systematic ways (Hong & Lawrence, 2011). The construct of reflection, in relation to how the teachers' inquiry stances shaped their literacy practices, was seen in various ways during this study. Specifically, analysis revealed the theme of shifting views of literacy instruction in all five case studies.

***Shifting views of literacy instruction.*** As the teachers engaged in research, their views of themselves as literacy teachers changed. For example, through ongoing reflection, Tiffany realized that how she was teaching did not reflect who she wanted to be as a literacy teacher. Reflection also aided Tiffany's understanding of the impact of using TPRS with her students. She shared, it "makes it possible for me to observe students operating in all four language domains in a matter of minutes" (Interview 3). These observations impacted how she taught literacy skills to her ELLs in her class. Tiffany's research showed that TPRS added efficiency to her literacy teaching, which was especially beneficial since she worked with a large number of students at several schools. This efficiency benefited the students' literacy learning because Tiffany was able to target and work on specific skills with particular students. An additional benefit of this method was that it fostered relationships with students, something Tiffany desired.



Reflection, as part of her inquiry stance, supported Tiffany's shifting views of herself and how she wanted to teach literacy. As a result, Tiffany made changes to her teaching in order for the dissonance to align.

Kate's view of herself as a literacy teacher also shifted. By nature, she was very structured and in control, but this changed over time and was reflected in an exit slip towards the end of the first semester when she wrote: *It is ok to change things along the way*. Kate, a veteran teacher, implemented a new practice (data notebooks/walls) into her classroom, which was a big change for her. This was a shift in how she shared students' literacy progress. Prior to using data notebooks/walls, this progress was more private; between her and individual students. However, reflecting on what she knew about her students and what she learned from the readings made these changes easier (Interview 3). She shared that now she talks "with them about what they wanted to work on." These conversations about students' literacy progress with skills such as letter identification helped her understand what students think they need to improve upon instead of her telling them this information. This shift showed Kate's desire as a literacy teacher to move from teacher-focused choices to more student-focused, where students felt ownership of their learning and progress. Kate's research shaped her literacy instruction because students became more involved, for example, setting goals for the number of sight words they could master each week. Her openness to reflection helped her recognize that it is acceptable to alter things midyear, which benefited the students in her classroom. This example illuminates how Kate's literacy instruction was shaped by her inquiry stance.

***Summary of reflection and literacy instruction.*** Reflection encourages teachers to examine how they are teaching literacy content, fosters self-examination of values, and how those values are or are not reflected in practice (McNiff & Whitehead, 2011). In this phase of the study, the teachers revealed that reflection shaped their literacy instruction by assisting in shifting their views of literacy instruction. Whether the reflections were written (on exit slips or in research journals) or verbal (in various interviews), the teachers often discovered aspects of their literacy instruction they wanted to change. Each revelation through reflection assisted in their understanding of teaching and offered a new view on how to potentially alter their literacy instruction. Thus, reflection is central to constructing and enacting an inquiry stance because it fosters a new way of thinking about teaching in which inquiry becomes a habit of mind. Specifically, in this study, reflection encouraged self-examination regarding how teachers taught and engaged in research.

**Pedagogical content knowledge and literacy instruction.** The teachers added to their pedagogical content knowledge (Shulman, 1987) by conducting research on their literacy instruction; topics ranged from writer's workshop to nonfiction texts based on the needs of the particular teacher. There is literature linking pedagogical content knowledge and inquiry stance (Dana & Yendol-Silva, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008). Specifically, Shulman (1987) defined pedagogical content knowledge as teachers' interpretations and transformations of subject matter knowledge so they may best facilitate student learning. The construct of pedagogical content knowledge was evident in much of the data including interviews, final papers, and

research journals. The teachers shared how and what they learned either about their research focus or while researching had a direct impact on what they learned about literacy and about literacy instruction. For instance, in our final interview Jane stated,

I have learned to spend more time studying and selecting more purposeful texts and teaching practices for using informational text with young students. No longer has this been a “grab and go” type situation in which the closest book on my bookshelf gets read that morning with my students during whole group. Instead, each one of my read-aloud book choices has been very intentional and specifically planned so that I am maximizing my instructional time, rather than just “accepting it” as I feel like I was doing previously.

Additional examples and analysis of pedagogical content knowledge and literacy instruction are shared in the next section within the following themes: close examination of literacy instruction, and synthesizing new and old information about literacy instruction, which were seen in all five cases.

***Close examination of literacy instruction.*** Conducting research challenged teachers to closely examine their literacy instruction. As a result, this close examination shaped how teachers “saw” their students and what they learned from watching them. This in turn built their literacy content and pedagogical knowledge. For instance, Tiffany found that students learned best when they received plenty of repetition on particular topics (Interview 2, Final Paper). Students also did well when they had an opportunity to speak first and listen in the natural order in which individuals typically learn language (Interview 2, Final Paper). This example draws attention to how inquiry built Tiffany’s pedagogy by helping her examine the ways her students learned literacy content. The results of Tiffany’s research impacted how she taught so much that she wanted to share

this literacy instructional method (TPRS) with others. This was seen in an analytic memo where she wrote,

I am looking forward to conducting the teacher training workshop and passing along what I have learned about using the T.P.R.S. method to others so that they can in turn provide opportunities for a greater number of students to benefit from this creative, engage way to learn language and develop communication skills!

Tiffany's inquiry stance shaped the decisions she made about literacy instruction because she looked at the bigger picture of her students' learning, not just what she was focusing on for the project. This wider view of her teaching and close examination of her students' learning shows that inquiry strengthened her pedagogical content knowledge, an aspect of Tiffany's inquiry stance.

When Liza closely examined her literacy instruction through inquiry, she realized that she needed to differentiate literacy instruction in her classroom (Interview 2). While conducting research, Liza closely evaluated each student's writing in her class. Looking at her students' work through the lens of research revealed that some of her students had diverse writing needs and would benefit from one-on-one instruction. In an interview, Liza elaborated, "I think it just proved for me even more that I have to differentiate. There is not one kid that is working on the same thing" (Interview 1). Although at first daunted by this, Liza's inquiry stance supported her pedagogical content knowledge and through close examination of her students' thinking, Liza determined that her literacy instruction needed to change. Liza revealed that teacher research supported effective literacy teaching because it assisted her in balancing planned and spontaneous skills instruction to meet student needs while still being able to take advantage of teachable

moments (Morrow, Tracey, Woo, & Pressley, 1999). For example, Liza carefully planned and prepared for her writing conferences with her students, but altered the focus of those conferences if a teachable moment presented itself (Research Journal). As a result of her inquiry, Liza began to differentiate her instruction beyond writing to other literacy instruction. This was motivated by what she learned from her research. In her final paper Liza wrote: *I found that they all need something a little different when it comes to writing. Some students need more help with handwriting, others with planning, or developing sentence structures or their confidence levels when it comes to spelling words.* Liza showed that an inquiry stance, for her, was adding to her pedagogical content knowledge and seeing how she could apply that knowledge in other areas.

***Synthesizing new and old information about literacy instruction.*** The theme synthesizing new and old information about literacy instruction represents blending what the teachers already knew about literacy instruction with what they learned from doing research. For example, Kate knew that her students were motivated by visual displays of their work. In an analytic memo she wrote, *some of them seem to be self-motivated, but many of them seem to be motivated by keeping up with their learning in their notebooks.* When she paired her existing knowledge of students' understanding of sight words, letter identification, and letter sounds with what she learned about goal setting, Kate was able to synthesize this information to better utilize data walls and notebooks to foster her students' literacy learning. This was powerful to Kate because it reminded her that there are many ways to learn, but how you put everything together is what matters (Interview

3). Kate's inquiry stance supported her ability to blend new and previous knowledge and learn from that synthesis.

The Teacher as Researcher/Leader is the last class that M.Ed. students take. For many students, this class acts as a catalyst for synthesizing learning from all of their previous graduate work. However, Liza felt that it was the experience of conducting research that helped her put the pieces of her other classwork in place (Interview 3). For example, although she learned about writer's workshop in another class, it was not until she began researching her implementation of this literacy instruction that she was able to truly evaluate its effectiveness (Analytic Memo). Research shows that teachers' attitudes about reading and writing impact the level of effective literacy instruction they are able to provide (Brooks, 2007). Liza's attitude about the importance of writer's workshop shifted as a result of conducting research. She realized that taking time for writer's workshop in her classroom truly benefited her students. In an analytic memo she wrote, *all of my students mentioned enjoying writer's workshop because of the choices they got to make*. By the end of the semester, it was clear that Liza had synthesized old and new information about her topic. For example, at the beginning of her research, she questioned if switching to this way of teaching writing would impact her students. By the end of the semester, Liza was certain that it did as she shared in her final paper, *I found that the Writing Workshop does help to make students better writers. My research showed that all six of my focus students' writing levels increased*. She also noticed that the students thrived from the one-on-one attention they received during conferences.

This shows that Liza's inquiry shaped her pedagogical content knowledge because it impacted how and what she taught.

***Summary of pedagogical content knowledge and literacy instruction.*** Through close examination of literacy instruction and synthesizing new and old information about literacy instruction, the teachers in the graduate course added to their literacy pedagogical content knowledge. An inquiry stance places values on the practical knowledge of the practitioner (Nolan & Hoover, 2004). Although each teacher in this study had pedagogical and content knowledge of the literacy topic they chose to investigate, using the lens of a researcher broadened and deepened their understanding of that knowledge.

***Agency and literacy instruction.*** The word agency implies action. The teachers in phase one of the study took specific action based on the findings of their research to change their literacy instruction. In some cases, the teachers shared these changes with others. Analysis revealed that the construct of agency related to the teachers' literacy instruction was evident in the following themes: extended application of literacy instructional practices (three of the five teachers) and sharing literacy instruction practices (three of the five teachers).

***Extended application of literacy instructional practices.*** The theme extended application represents teachers' desires to extend what they learned from inquiry to other situations. This sparked action in regards to their literacy instruction. For example, Donna shared that teacher research gave her confidence to persevere with teaching vocabulary differently not only in that particular subject, but in other subjects as well (Interview 3). In her final paper Liza wrote, *I feel that I found out more about them (her*

*students) than I have with my past classes.* This statement hints at Liza's appreciation for the opportunity to know her students better as writers. In her final interview, Liza explained that building stronger relationships with her students actually impacted how she taught them other subjects as well.

In another example, Jane problem-solved as she faced the dilemma of implementing more nonfiction texts into her classroom. She shared in an exit slip: *teacher research can be a solution for me and not for everyone.* This statement reveals Jane's understanding that when teachers conduct research in their classrooms, it is personal and not necessarily generalizable. Although not generalizable to others, what Jane learned she was able to extend to other aspects of her literacy instruction such as shared reading (Interview 3). In addition, Jane's research made her realize that she had to actively plan her read alouds in order for her students to benefit as much as possible (Interview 3). This practice extended the application of her research to how she taught and how she planned for literacy learning.

The above example highlights the potential impact of inquiry on literacy instruction. Jane enacted agency by recognizing that she had power to change her practice. Jane changed how she taught with nonfiction texts and extended what she gained from inquiry to other aspects of her teaching. These examples show how Jane enacted agency, which supported her inquiry stance, and helped her focus on her literacy instruction with her students in the forefront of her mind.

***Sharing literacy instructional practices.*** The construct of agency was also apparent in the teachers' desire to share their literacy research with others. This is an



important aspect of an inquiry stance because it shows teachers pushing out of their comfort zones and potentially impacting other teachers. Although not “required,” sharing findings from teacher research often empowers teachers and propels them toward finding answers to their next question (Cochran-Smith & Lytle, 2009). Some teachers, such as Tiffany, had a plan to share her research before she even started collecting data (Interview 1). Agency was seen in her desire to share with other ESL colleagues and administrators in her district. When Tiffany shared her findings with others, it shaped her literacy instruction by reaffirming that this type of literacy instruction (TPRS) was particularly beneficial to students with whom she worked (Interview 3). Tiffany also looked forward to presenting at the Triad Teacher Research Conference that May and was thinking forward to her next research project when I interviewed her in April. Tiffany shared, “I feel like this one group of fifth graders needs what this (TPRS) has to offer” (Interview 2). Tiffany’s desire to continue research showed that she was beginning to think of research as a habit of mind rather than just something required for a class. By taking steps to share her research with others, we see Tiffany’s agency in action.

Kate was motivated to share her research with others because she thought that if the results from her study were positive, it might motivate the other teachers to be more consistent with their use of literacy data walls and notebooks in their own classrooms (Interview 1). When Kate shared the findings with her grade level team, it showed how something teachers were expected to implement, literacy data walls and notebooks, actually impacted students. Kate’s desire to communicate the findings from research on an aspect of her literacy instruction showed that sharing was an important part of agency

within her inquiry stance. Tiffany and Kate both exhibited characteristics of agency as a construct of an inquiry stance, because they valued sharing ideas with their peers in hopes it would impact others' literacy instruction.

***Summary of agency and literacy instruction.*** Inquiry involves action and the teachers in phase one of the study took specific action based on the findings of their research. As a result, they enacted agency in various ways that shaped their literacy instruction. For these teachers, it was not enough to only think or learn about making changes; they took action based on their reflection and new understanding, which according to Nolan and Hoover (2004) is the essence of an inquiry stance.

***Summary of literacy instruction.*** The teachers' interviews and artifacts revealed that shifts in their literacy instruction were driven by reflection and pedagogical content knowledge. How the teachers chose to make changes to their practice revealed part of how they enacted agency. The connection between inquiry stance and literacy instruction is important because it provides another way to consider what effective literacy teaching looks like (Lytle, 2000).

### **Conclusion of Findings from Phase One**

The first phase of this study set out to understand how teachers constructed and enacted an inquiry stance within a graduate class and how that stance shaped their literacy instruction. Each teacher began to take on an inquiry stance during the graduate class and the constructs of reflection, pedagogical content knowledge, and agency provided ways to see how these stances varied. In addition, the constructs of reflection,

pedagogical content knowledge, and agency also provided a way to examine how inquiry shaped literacy instruction.

All teachers shared that their research impacted their literacy instruction in some way. For example, Tiffany shared in an interview that teacher research “fostered teachers’ professional growth, resulting in a better education for students” (Interview 3). However, during the final interview only three teachers expressed interest in continuing research into the next school year and only one, Liza, actually started and completed a new research initiative independently. The next chapter focuses on Liza and follows her research journey the year following the graduate class.

**CHAPTER V**  
**FINDINGS FROM PHASE TWO:**  
**LIZA—THE FLEXIBLE TEACHER RESEARCHER**

I don't feel stressed doing this (teacher research) I feel very go with the flow.  
~ Liza

I first met Liza in the summer of 2012. She was halfway through her Master's program and I was a teaching assistant in the advanced writing methods class, a required course for a Master's in Education in Curriculum and Instruction. Liza had a bubbly personality that was often portrayed as she talked with her hands, smiled a lot, and made an effort to make visitors to her classroom feel welcome. Almost two years later, Liza was still smiling and excited to share the news that she was pregnant and due in August. At 27, her straight brown hair hung to her shoulders and she talked animatedly about her class and her thoughts about her next teacher research initiative. She also shared that she was thinking about the possibility of trying to loop with her current first-grade class to second grade. "I think I am ready," she said.

Liza described herself as both "go with the flow and purposeful," as echoed in the quote above. Her low level of stress regarding her second teacher research attempt was evident as we chatted. This attitude toward teaching and research may have been one of the reasons she was still happy to remain in the classroom after seven years of teaching. After she graduated from the M.Ed. program, Liza applied for several positions that could have potentially taken her out of the classroom, such as a reading specialist or a

curriculum coach. She said that the only reason she would want to leave the classroom is because “there are some unrealistic goals that are being set and that is not coming from my county or my principal but much higher than that” (Interview 2). Although she was disappointed that she did not get a job that specifically utilized her extra training, Liza remained focused on students. “If you are just there for a job then I don’t feel like you are going to do as good” (Interview 2). For Liza, teaching was more than just showing up and getting a paycheck. She truly cared about her students and wanted to learn more ways to support them, which was one of the reasons she went back to get her master’s degree.

To better understand Liza, I provide a detailed description of her school and classroom. These descriptions give insight into the context in which she teaches, and undoubtedly shapes her inquiry stance.

### **The School**

Grandover Elementary is located in the heart of a small-sized town in the southeast. The three-story brick building with its green tile roof sits on a quiet side street not far from the main road that runs through town. A long blue awning greets visitors and guides them up the front steps and into the entrance of the school. As you open the door, there are a multitude of choices for which direction to travel next. You could go down the stairs on the right into the cafeteria. You could travel left down a hallway filled with classrooms. Or you could walk straight up more steps to see what lies ahead. It is clear that this school has had many additions over the years and a map is a necessity to find your way around.

When I arrived for my first observation on a cold January morning in 2014, the front office told me that Liza's class was in the library. I must have misunderstood the schedule, since I was supposed to come during Liza's literacy block, not while the students were at a special class like library. Entering the library, I saw backpacks lined up against the wall and Liza seated at one of the tables with a student. She appeared to be doing assessments. The boy next to her was reading sight words while she used an iPad to track his progress before calling the next student to her table. In our first interview, prior to this observation, Liza tried to educate me about the many mandated assessments now required in first grade (Artifact 1). As a former first-grade teacher myself, I quickly realized that assessments were a reality that she could not escape.

The rest of the 22 students were spread out among the other tables eating snack. I gave Liza a questioning look and she rolled her eyes. I would find out later that the heat in Liza's classroom was not working. She was told it would only be a day or so before they would return to their classroom (January 9, 2014). It took a week. I tell this narrative to illustrate both the financial and academic strains of Grandover, which I describe below.

Like many schools in the area, Grandover was under financial strain. This created tension within the school and impacted the teachers. For example, when offered a \$75,000 Action 100 grant that provided teachers leveled reading books, the principal jumped at the opportunity. Liza, however, had mixed feelings about the program. She was happy to have the books, but it came with more hoops to jump through, additional observations, and more assessments, which did not align with the state-mandated

standards and evaluations. The pressure to bring her students through so many reading levels was clear and evidenced by Liza's bookshelf, organized according to reading levels A–J. It was a visual reminder for her of where kids start out and how far they have to go (January 13, 2014). Thus, the focus on a particular reading program rather than an approach that met the needs of the students created teaching and learning dilemmas, especially when money was involved.

As a Title I school, Grandover Elementary offers breakfast to each of their 540 students daily. The students are African American (42.3%), White (27%), and Hispanic (23.3%). Students at Grandover are often children of migrant workers so they might be in school for a few weeks and then gone for months at a time. Meeting the needs of the diverse population of students was an additional source of tension. Many of the teachers came from different cultural and linguistic backgrounds than their students. This suggests that more work needs to be done to build relationships and make connections with students. When I asked Liza about this tension, Liza responded, "It is just part of our school." Her comment suggests that Liza recognizes and accepts this as a part of her job as a teacher at her school.

### **The Classroom and Students**

Liza decorated her classroom with bright colors and bulletin boards displaying student work. Anchor charts lined the walls, highlighting various lessons in science and social studies. The desks were situated so they formed eight small groups. There was one wall of windows but the view was of a brick wall since Liza's classroom was part of a wing in the school that was added later. A white board and a smart board were set up in

the front of the room and right below that, a well-worn carpet covered part of the linoleum floor. The writing table, which was a new addition last year due to her research on writer's workshop, still held a prominent place in the back of the room and had various writing materials for easy student access (Artifact 2). Liza's desk was in the back of the room near the cubbies, sink, and storage cabinets; it was piled high with books, papers, and colored pictures from her students. It was clear that she did not sit there very often.

The students in Liza's classroom represented the ethnic diversity of the school; most of her students were African American or Hispanic and about 80% of her 22 students received free or reduced lunch. A typical day in Liza's classroom began at 7:45 with the students toting their backpacks and lunch boxes. Liza started each day with morning meeting during which all of the students gathered on the floor in front of the smart board. This was followed by an hour of math. As the students worked independently after the whole group math lesson, they ate their snack. Usually, when I arrived at 9:30 am, the students were finishing up snack and getting ready for guided reading and literacy centers which ran from 9:30–10:30.

Liza enjoyed teaching in small groups, so she structured her schedule to allow for as much of that as possible in her classroom. Liza believed that the best way to differentiate is to work with children individually. In an interview, she elaborated on that belief by saying, "I try to make reading in our small groups fun and enjoyable for them and they don't think that they are learning." Liza's first-grade students thrived with small group instruction and they enjoyed the extra attention from her during these groups.



Even at this young age, some of her students were resistant to learning, so Liza worked hard to make first grade fun.

During guided reading, Liza used a variety of materials such as letter tiles, leveled books, index cards with words, and other manipulatives to help her students learn to read. As she met with students for assessment or guided reading groups, the other students rotated through stations which included computers, two mixed up words, Time for Kids, sequencing, matching, word study, vowel sounds, books, and the SMART Board. Liza changed the stations every two weeks (January 10, 2014). The students returned to their own classrooms after guided reading, and then Liza taught the county-mandated phonics program Foundations to her students. This was Liza's least favorite part of the day because the scripted program had to be taught whole group. It only supported some of her students. After 30 minutes, her students headed to their "special" classes, such as computer or art, and then went to lunch.

In the next section, I provide evidence from conversations and observations to better highlight who Liza is as a teacher. This provides context for understanding her inquiry stance, specifically as it pertains to why she chose to construct and enact an inquiry stance and the supports and constraints that shaped those constructions and enactments.

### **Liza: The Teacher**

Liza has taught first grade at Grandover Elementary for seven years. Although the challenges associated with this particular school impact her teaching and her research,

she loves teaching there. She shared her dedication to her students during one of our interviews by sharing,

I remind myself daily that I am not there for myself but I am there for the 22 kids and they are there to learn something and I am there to teach them. It doesn't matter what is best for me. It matters what is best for them. (Interview 2)

This quote is one example of how Liza attempts to stay “student focused” despite pulls on her attention from other directions (January, 29, 2014; February 18, 2014; March 8, 2014; May 12, 2014). Next, I provide a rich description of Liza’s typical teaching practices. Specifically, I describe those practices in relation to the following two factors that influenced her teaching: control/autonomy and data/student achievement.

### **Control/Autonomy**

Although at first it appeared that Liza had a lot of freedom to make instructional choices, when I asked her in an interview she shared, “I have some freedom but we have a lot of straightforward curriculum that is given to us.” During one of my observations, Liza walked me around the classroom and showed me the various programs that she was expected to use. In addition to Action 100, the school also adopted the Comprehension Tool Kit, a scripted program that teachers are required to use each day (Artifact 4). In an interview, Liza explained that teachers “are not encouraged to stray from that (Comprehension Took Kit).” In regards to this program as well as others that Liza was expected to follow she said, “There is not anything we can do because it is not county mandated but state mandated” (Interview 1). Liza’s discourses about these programs reveal how her principal chose to frame the various mandates; decisions come from the

top and the need to follow them. It was clear that Liza did not feel that she had much control or autonomy when it came to curricular choices at her school.

In addition, Liza believed the lack of autonomy worsened each year. In the graduate class, Liza had other peers to talk with about these issues. Her research group consisted of other elementary teachers from different school systems, who also shared her concerns of autonomy. In contrast, this year she was surrounded by teachers in the same situation as herself, working with the same administrator and the same types of students. True to her “go with the flow” nature, Liza did not push back against the lack of autonomy but it was clear from our conversations that this impacted her teaching (January 31, 2014; March 27, 2014; May 19, 2014). To summarize, Liza shared that she liked to be in control, but often felt like she did not have as much control over how or what she teaches as she would like.

Liza opened space for autonomy with her students. For example, during one of my observations Liza spent time reviewing an anchor chart that she and the class made together. The students sat on the carpet looking up at the chart, which listed rules for silent reading. Liza sat in a chair. “Eyes on the page; think about what those words mean to you,” said Liza. She read the list out loud and reminded them that they were not her rules but rules they made for themselves so they should try to follow them. “Your goal is to follow your rules. If you forget, where can you look?” The students answered by saying the chart. Then the students went back to their seats and read silently (January 29, 2014). By stopping the students during their reading time and pointing out the rules that the class made, Liza transferred the ownership of appropriate behavior to the students

rather than dictating how they behave. Although Liza did not have full autonomy in her teaching, she tried to instill autonomy in her students by holding them accountable for their behavior (February 25, 2014; March 20, 2014).

### **Data/Student Achievement**

Another component of Liza's teaching was concentration on data. This focus came directly from her principal who felt teachers were just putting their students on action plans rather than looking at their own teaching. There were also perceived inconsistencies with how much time the first-grade team was spending on guided reading (April 17, 2014). Based on these beliefs, the principal suggested a new guided reading structure that forced each teacher to have two 30-minute blocks of guided reading time. The students' reading levels were shared at each data team meeting. These data determined which students were in which groups and who taught those groups. The teachers then used those data to plan for instruction. In addition, the teachers were all told to follow the same lesson plan format. This focus on data impacted Liza's teaching because in the beginning of the year she approached her principal about using an alternate guided reading plan to best meet the needs of her students. That plan was approved, but due to these changes, Liza was then asked to follow the same plan as the rest of the first-grade team (Artifact 5).

Although Liza outwardly maintained her "go with the flow" reputation, she had inner doubts about how much data was impacting her teaching. This was evident when I visited Liza's classroom on the second day of switching for guided reading. Teachers were now leading guided reading groups of first graders based on their reading level

rather than students from their own classrooms. When I asked her how she was feeling, she shared, “In ways, it is fun to work and interact with kids not in my class but at the same time I don’t know those kids as well” (January 28, 2014). Specifically, those doubts related to her relationships and knowledge of the new students with whom she would be working. Liza also shared that starting that the next day, Wednesday, and every Wednesday after that, the team would not switch for guided reading because that day was saved for assessment. The assessments done each Wednesday were either state-mandated assessments or progress monitoring which was required in between the monthly state assessments. Although Liza valued data, she would have preferred to teach on Wednesdays rather than assess.

It was easy to see how data shaped her teaching practice. For example, one time when I came to visit, Liza was not teaching. She had been pulled into a data meeting with her principal and a sub was covering her class. I learned later that they spent that time looking at the first-grade reading scores (February 19, 2014). Her administrators valued the data team meetings so much that they paid for a substitute and took Liza out of the classroom. During these meetings, the teachers were reminded once again about the importance of how their data looked (April 8, 2014). The data-driven nature of her school also impacted what Liza prioritized in regards to her planning and instruction. Toward the end of the school year, she worked specifically with students who were close to being on grade level in hopes that their data could improve.

Liza’s focus on student achievement (i.e., standardized assessments scores) was also evident in her teaching. There was some concern within her grade level team about

switching for guided reading because of Standard Six: Teachers Contribute to the Academic Success of Students. This standard was adopted in 2012 and this year (2014) for the first time, data related to growth and proficiency from students in grades K–2 would be used to evaluate primary grade teachers (April 17, 2014). Thus switching for guided reading had implications for all the first-grade teachers since they were no longer working with their own students for reading, yet they would be held accountable for their growth. Liza expressed concern in an interview when she stated, “We weren’t given a choice to do that but if we were to take a vote I don’t think we would have done it” (Interview 2). When I asked Liza if she worried about Standard Six, she said no. Liza’s comments about her students’ achievement are very positive and rightly so; at the second data meeting in April, the teachers learned that six of the nine students in first grade who were on grade level or above were in Liza’s class. In an interview, Liza expressed her confidence in relation to students’ achievement on standardized assessments, “I don’t think I am woohoo this fabulous teacher, but I do think I am good at my job” (Interview 2). Liza received verbal recognition and praise from her principal at the meeting, which shaped her instructional practices related to student achievement.

Liza used careful planning to help her students prepare for standardized assessments. Although many of the guided reading books had guidelines and suggestions for what to do, Liza relied heavily on the tools she learned in graduate school to plan her lessons (April 17, 2014). In addition to those tools (the ones learned in graduate school), she found that she liked using the guided reading plan because it had elements of word study and writing in addition to reading (Artifact 7). Several of the assessments had a

writing component so planning to practice writing during guided reading was important. When Liza talked about her teaching related to student achievement, it was clear that she felt confident and was comfortable verbally justifying the use of various resources to meet her students' achievement needs.

Liza's teaching was impacted again after another data team meeting during which the principal decided to give each teacher similar groups of students to help with planning. This new way of grouping, based on the standardized assessment, allowed the teachers to only write lesson plans each day for guided reading. Liza then altered her teaching because of the low reading level of her groups so that each child would have one-on-one instruction (Interview 2). Switching for guided reading forced Liza to focus her teaching on a particular group of students rather than her whole class. The way the groups were divided, she worked more with struggling readers than her colleagues did. The focus on student achievement shaped Liza's teaching as she planned lessons geared to get students reading on grade level.

Below, I provide a rich description of Liza as a researcher. Specifically, I highlight three areas: making changes, purposeful planning, and evolving research practices.

### **Liza: The Researcher**

Liza's quote at the beginning of this chapter exemplifies how her attitude toward research shifted over time, from being high stress in the graduate class to low stress while doing research on her own. In several interviews, Liza mentioned that being purposeful is part of the climate of today's public schools. To further explain, she said, "I feel like I

always have to be able to defend what I am doing at all times. If I don't have a purposeful data-driven reason for why I am doing this in the classroom, then it is not ok."

While conducting research, other aspects of Liza's research practices emerged. These were seen in the themes of making changes, purposeful planning, and evolving research practices, which I describe next.

### **Making Changes**

Liza had a strong need to be focused with her research. In an interview, Liza explained what she meant by being a purposeful researcher. "I think any good teacher looks at data along the way and I feel like at one point we are all researchers in that we are always assessing or taking a grade but it is what we do with it that really counts" (Interview 3). Liza desired to use what she learned from research. She did not fear making changes to her teaching and welcomed the opportunity to talk about how her research made her think differently about her teaching.

Her focus on making changes based on her research came up many times during our conversations. The summer before Liza took the Teacher as Researcher/Leader course, she attended a writing class that introduced her to writers' workshop, which eventually became the topic of her first teacher research project. She described her research by saying, "I looked at how their levels of writing increased or decreased as a result of using it" (Interview 1). This quote is an example of how Liza's need to make changes was tightly wrapped up in data, even in her first research project. The "data" were scores from rubrics that she used to score students' writing. Although she used other data sources, Liza privileged these findings from her research because they



reassured her that writers' workshop was worth the time and effort, thus validating Liza's goal of making changes. These findings also convinced her to talk to her principal about extending her writing time each day.

Prior to conducting research, Liza taught in a similar way year after year; however, research helped make her open to changing her teaching practice. For example, this year Liza continued to use writers' workshop (the topic of her first inquiry) in her first grade but she made some changes. In an interview, she explained, "I've changed a few things (from last year to this year) because my kids are different, but the same idea is there" (Interview 1). Liza now alters her teaching practices based on the needs of her students. Additionally, Liza had to change her research to adapt to the new way of teaching guided reading at her school (January 10, 2014). This time, her practice of teaching guided reading was changed because she was told to make that change. Liza used her research to better understand how this forced change impacted her students' reading abilities.

Liza also made changes to her research practices by broadening her audience. In addition to sharing the findings with her principal, she also presented her research at the annual convention of the National Council of the Teachers of English in Boston (Artifact 8). Liza also led a Hot Topics session for her county on writer's workshop. Liza wanted to share with others how she made changes to her teaching because of her research. This was important to her because she wanted other teachers to know that making these changes benefits students and is incredibly rewarding professionally.

### **Purposeful Planning**

Liza was the kind of researcher who planned well so that she could use her time efficiently. When I met with Liza in January to talk about her research, she was thinking of focusing on guided reading genres. In an interview, she explained her reason for that choice: “I realized I did not do a good job teaching that last year.” The topic choice reflected Liza’s need to be purposeful. She wanted to choose something she did on a daily basis and not something extra that she would have to make time for in her classroom. In the fall when Liza spoke to my graduate class about teacher research, she gave them the same advice as they began planning for their own research (Artifact 9). Liza also wanted to plan a project that would allow her to improve her teaching. Liza noticed that when she assessed her students, some would be on one reading level for a fiction story and then a lower reading level for a nonfiction story. Liza shared that she used “a lot of nonfiction in whole group” that was not the case during guided reading (Interview 1). Realizing this area of her teaching needed more attention, Liza decided to be purposeful about her topic and gear it towards something she wanted to improve.

From her previous experience with teacher research, Liza knew that she would need to choose her topic early and make a plan so she could get it done. Part of her plan included creating resources that we used in the class such as a timeline and a crosswalk.

According to Liza:

I think that making a time line is something really beneficial to me so I can see it in the weeks ahead and what I need to do. I made a crosswalk too to see how I can answer my questions because it shows me what kind of data I need to collect. (Interview 2)

This quote revealed the strong connection between how Liza planned for her research this year compared to how she planned while in the graduate class. Specifically, her phrases “making a time line” and “made a crosswalk” illustrated that she understood why these tools were important and how they could help her answer her question. During my first observation in January, after the kids headed off to specials, Liza showed me her research crosswalk and timeline (Artifact 10). These hard copy artifacts show that Liza’s talk and actions related to purposeful planning align. Due to being forced to switch for guided reading midyear, Liza changed the focus of her research to: What impact does switching for guided reading have on her first-grade students’ reading levels? Liza created additional artifacts to support the focus of her new research topic, which showed that her practices of purposeful planning were resilient.

### **Evolving Research Practices**

To understand Liza as a researcher, it is important to compare what she said regarding research this year and while in graduate school to better understand her evolving research practices. This is important because it illustrates how her thoughts about research changed over time. In an interview Liza shared, “This seems kind of fun and I just want to see what happens with it. Not like oh my gosh I have to follow this timeline to an exact t because I have to write it in a paper for it or get that A. I definitely feel very different about it” (Interview 2). This quote reveals that for Liza her grades played a large role in her inquiry stance last year. She was worried about doing research the right way. Now that she was researching on her own, Liza’s focus was not grades; instead, her thoughts centered on what she could learn from her research.

Liza also shared that one of the biggest differences between this year and last year was that she did not do as much outside reading about her topic. She added, “This is more for me, not that last year wasn’t for me, but this is for me and not anyone else but this is for my practice, for my kids, for my teaching” (Interview 2). Although Liza appreciated the experience of researching as part of the graduate class, it was clear that this year an internal rather than external force drove her desire to research.

Unlike the graduate course that required Liza to use different data sources, Liza’s main data sources were state-mandated ones such as the monthly Text Reading and Comprehension (TRC), which determined students’ reading level. After observing Liza manage the required assessments, I believed her when she said that she did not have time to generate other data (February 13, 2014; March 6, 2014; April 4, 2014; May 12, 2014). Liza’s other research practices followed a similar pattern as her work in the graduate class. Liza demonstrated this year that she could do research on her own and in her own way. She valued what research showed her about her teaching and her students but recognized that in order to be a successful researcher she must carefully plan. Reflecting on her evolving research practices this year compared to last made her feel more confident.

In the previous sections, I painted a picture of Liza’s school and classroom as well as her teaching and plan for classroom research. These rich details set the context for better understanding the answer to the research question regarding how Liza constructed and enacted an inquiry stance.

### **Liza's Inquiry Stance**

In the previous chapter, I described how five of the teachers in the graduate class constructed and enacted an inquiry stance. Analysis of those data revealed that for several teachers, this stance seemed to permeate some aspects of their teaching. The following year I focused on Liza. Thus far in this chapter, I have described where Liza teaches and her typical teaching and research practices. All of these factors influenced her inquiry stance by shaping how she viewed and enacted teaching. To better understand this stance, and answer the first research question for phase two, I used the constructs of reflection, pedagogical content knowledge, and agency to guide my understanding of how Liza constructed and enacted an inquiry stance after she graduated. Using formal and informal conversations, artifacts such as lesson plans and data charts, and over 72 hours of classroom observations, I was able to identify instances of Liza's inquiry stance in her talk and in her actions. Table 16 highlights the breadth of evidence that was collected regarding Liza and her inquiry stance. The next sections focus on each theme as it relates to the constructs of reflection, pedagogical content knowledge, and agency.

Table 16

#### Analysis of Liza's Inquiry Stance

Construct of Inquiry Stance	Theme	Number of Examples in the Data
Reflection	Reflecting about Students	35
Reflection	Contemplating Feedback	12

Table 16

(Cont.)

Construct of Inquiry Stance	Theme	Number of Examples in the Data
Pedagogical Content Knowledge	Valuing All Data	27
Pedagogical Content Knowledge	Meeting Students' Needs	32
Agency	Persevering	18
Agency	Leading the Way	23
Agency	Sharing Research	14

### Reflection

Determined to be purposeful, Liza reflected continuously throughout her research process to make sure the research she was doing aligned with what she wanted to learn. Reflection is a way for teachers to explore their own approaches to teaching, solve problems that occur, and develop strategies to support their ever-changing classroom (Dewey, 1938; Schön, 1987). As teachers engage in reflection, they spend time thinking about their students and their teaching, which strengthens their ability to meet students' needs (Darling-Hammond, 2006). Liza's reflection was an important component of her inquiry stance because it allowed her to see aspects of her teaching she wanted to improve and it helped guide her to plan research to address those needs. This type of reflection was seen and heard throughout our time together in two specific ways: reflecting about students, and contemplating feedback.

**Reflecting about students.** The theme reflecting about students represents the many instances I saw or heard Liza talk about her thinking regarding her students during

my observations. At times Liza shared these reflections verbally and at other times she reflected on sticky notes. Regardless of how she reflected, she did so in order to purposefully plan what and how she taught. For the purposes of this study, I focused on her reflections about students specific to guided reading. Liza shared how her reflections were student-centered during an interview when she said, “I am always thinking, ‘How is what I am going to research going to help my kids?’” (Interview 1). This focused reflection helped keep her attention on her students’ needs.

Liza shared that for her, reflection means looking at daily student progress. She did not consider herself reflective because she “doesn’t keep a journal,” but yet she was constantly thinking about what her students needed and how she could support them. For example, during an observation in May, Liza talked to me about the challenges of finding time to teach during the end of the year madness. One group of students she was particularly concerned about was on the edge of being “on grade level” with their reading. Reflecting about what her students needed, Liza planned specific guided reading lessons based on what she saw students struggle with the day before to support their knowledge. For example, one day while I was observing, she saw students struggle with sight words during guided reading. Based on her observations, she reflected on other activities to build into guided reading to support their sight word knowledge. I saw this the following day as she incorporated a quick review of sight words prior to having the students read the text that day. Reflecting about students is important to an inquiry stance because it helped Liza examine her teaching with a critical eye so she could learn from her teaching and improve it.

**Contemplating feedback.** The theme of contemplating feedback represents a shift in Liza's reflection. During the study she moved from simply accepting feedback from others to being thoughtful about that feedback and relying on her own insights to guide her teaching. Prior to conducting classroom research, Liza shared that she relied on feedback from administrators to tell her how she was doing as a teacher. In an interview, she elaborated by saying, "I looked at data and saw that they weren't progressing but thought it is just because they were not getting it. I never thought about me being the problem" (Interview 1). Conducting teacher research first in the graduate class and then this year on her own reminded Liza to take time to look at her own teaching practices. In an interview, she explained the importance of such reflection: "It really makes you look at yourself as a teacher a little more in depth than a teacher who is not doing research" (Interview 1). This type of reflection helped Liza realize the power of examining her own teaching which is significant because it led to her taking steps to address areas about which she was concerned. Liza met and responded to problems as she learned to reflect on her own understanding rather than looking to an outsider to tell her what she was doing well or what she needed to work on. Reflection played a significant role in Liza's self-understanding.

Liza also contemplated the feedback I gave her as a fellow teacher researcher. She often reflected on our conversations and showed this by saying during my visits, "I thought about what we talked about . . ." Instead of seeing our relationship as student/instructor she viewed me as someone who in the past had also conducted teacher research in a first-grade classroom. For example, we discussed how she could assess and



monitor her use of nonfiction/fiction genres when that was her research topic. Liza reflected on this conversation and then later told me how she altered her original plan of assessing comprehension based on the genre of text after she thought more about our previous conversations (January 19, 2014). Liza also contemplated feedback about the results of her research this year. Because the findings from her research were not as clear-cut as they were the year before, Liza felt more vulnerable. In an interview, she expressed her concern to me by saying, “I can’t answer my question” (Interview 3). In our final interview Liza looked for reassurance that her lack of findings was acceptable. The feedback I offered Liza included encouraging her to look at other things she learned from her research beyond answering her questions. Perhaps Liza used our conversations as a space for reflection because she did not have the support of a research group. As Liza contemplated feedback through reflection, she recognized that being thoughtful and relying on her own insights could guide her teaching, a significant component of reflection (Interviews 2 and 3).

### **Pedagogical Content Knowledge**

One of the biggest differences I saw in Liza’s research when looking at the data from phases one and two of this study was how she gained pedagogical content knowledge. Examining pedagogical content knowledge is a way to make sense of the teaching process and the influence of teachers’ knowledge of instruction (Shulman, 1987). This is important because researchers believe that pedagogical content knowledge has a large impact on teachers’ classroom actions (Grossman, 1990). To be even more specific, Liza used “noticing” to build her pedagogical content knowledge. The word noticing is

how Liza described her development of pedagogical content knowledge while researching on her own. I define noticing as Liza's understanding of a moment and her response to that moment (Russ & Luna, 2013). Noticing, using this definition, is focused on a person's understanding of what they see versus what they read. This was different than in phase one where Liza built her pedagogical content knowledge by reading literature related to her topic. Although her observations were mentioned in phase one, they were not as central to her understanding as they were during phase two. In particular, the focus on noticing rather than reading literature illustrated how she generated her own knowledge about content and pedagogy. Noticing helped Liza build her pedagogical content knowledge, an essential component of her inquiry stance, that was seen and heard throughout our time together in two specific ways: valuing all data and meeting students' needs.

**Valuing all data.** Liza illustrated the theme of valuing data by placing significance on standardized assessments as well as her own noticings about student progress during daily interactions. Specifically, Liza used formal and informal assessments to build and inform her pedagogical content knowledge. Teacher research, according to Liza, made her view data differently (Interview 3). In an interview she shared, "I am more observant and I internalize things better. Oh, that person needs to work on this. I am able to notice a lot more things" (Interview 2). Liza used the word "observant" to describe how "noticing a lot more things" shaped how and what she learned about her students. This highlights how noticing shaped her pedagogical knowledge because it impacted how she taught. By using the word "noticing" she

emphasized how watching students was part of how she learned about them. For example, in one observation Liza noticed that the students in her guided reading group were struggling to sound out short vowels during reading and they confused short vowels when they wrote. Liza planned the next lesson to specifically address short vowel work based on her noticing. By noticing things in the data, she gained knowledge of content by recognizing that particular short vowels may be more challenging to struggling readers than others and in pedagogy by incorporating new ways to support students' learning of short vowels and tailoring instruction to meet students' needs. Thus, Liza valued the pedagogical content knowledge she gained from these informal assessments and used them to alter how and what she taught, which I saw during my numerous observations in her classroom.

Although Liza appreciated the information gained from formal assessments, she knew that at times these data could be misleading. For example, Liza shared that the Text Reading Comprehension (TRC) assessment that was used each month to determine reading levels did not have a writing component. Liza shared, "Students look like they are making progress even if they are not because when they take the benchmarks, which have a writing component, the data is usually worse" (Interview 2). This highlights how her noticing shaped her knowledge of the content; specifically, she gained understanding about what test scores can mean. Liza's experience and expertise as a teacher made her aware that one assessment inflated scores but the other did not. Liza noticed this as a pattern and weighed the information from these assessments accordingly. Because Liza valued all data, she did not let one type of assessment dictate how or what she taught her

students. Thus, Liza's ability to notice particular nuances of these assessments shaped her pedagogical content knowledge. Liza's desire to value all data, formal and informal, was central to her inquiry stance because it showed that she did not simply accept data, she took the next step to try to understand what the different types of data were really representing so that she could make informed decisions about her teaching.

**Meeting students' needs.** This theme represents how Liza used assessment, formal and informal, to meet the needs of her students. As she did this, Liza added to her pedagogical content knowledge, which in turn influenced how she thought about teaching. Although Liza valued various data sources to better understand her students' needs, her school placed more emphasis on standardized assessments. For example, at one of the data team meetings, the formal data revealed that the teacher-led guided reading groups were making more progress than the groups led by the assistants. Although the teachers planned the assistants' lessons or had them use "stock" lessons that came with the books, the students in these groups were not making as much progress. Liza could have argued that the discrepancy between the teacher-led and assistant-led guided reading groups could have been related to how the lessons were being implemented or perhaps how other data, such as informal assessments, were not being utilized. However, her colleagues and her administration did not value these noticings. Thus, Liza neither took her notes to the data team meetings nor did she discuss them with her colleagues (Interview 2). In this example, students' needs were not met in part because of the school's emphasis on only one type of data.

Despite the lack of interest in informal assessments from administration, they played a large role in Liza's teaching. She shared, "I use it to plan what my next lesson is going to be. If that book was a little too hard I might be more aware the next time I pull a book. Informal assessments fine-tune what is going to be taught" (Interview 3). This quote highlights how Liza used the informal assessments to help her meet students' needs, thus shaping the way she gained knowledge in content (what aspects of the material did her students find easy or challenging) and then in pedagogy (how she planned to teach guided reading in the future). Liza learned from her students in a variety of ways, including noticing and formal assessments, as she encountered new challenges each day in her classroom. This understanding came about through her knowledge of students including their strategies and prior conceptions and misconceptions—all aspects of pedagogical content knowledge (Mishra & Koehler, 2006). Informal data sources such as anecdotal notes may not be valued at her school, but Liza knew that for her and her students they were an important piece of the puzzle regarding student performance. For Liza, meeting students' needs as she built pedagogical content knowledge was an important part of her inquiry stance because it showed that she valued her own perspective, as an expert, as much as the expertise of others.

### **Agency**

Liza's case study illustrates the range of agency that one teacher can display from attempting to alter prevailing norms (Emirbayer & Mische, 1998) to being able to imagine new ways of being (Holland et al., 1998). These definitions show that agency is the capacity to make choices and act; when teachers take action, they shape a community

in some way. Data from the case study revealed that Liza's level of agency changed as she conducted her research. Specifically, the more data she collected, the more she felt like an expert and the more agency she demonstrated, as shown in the data below.

When I first met with Liza she shared, "If I am going to go through this and do all of this research and do nothing with it, then what was the purpose of it?" (Interview 1). This quote shows that although Liza valued the information she gained from reflection and the knowledge from noticing, she also wanted to do something with what she learned. The ways Liza took action provides insight into how agency shaped her inquiry stance. Teacher researchers, according to Massey and Duffy (2004), portray a range of agency, both inside and outside the context of their classroom. In the next section, I detail how Liza's enacted agency shifted throughout the study in three key ways: persevering, leading the way, and sharing research.

**Persevering.** The theme of persevering represents the numerous times Liza demonstrated agency by the way she chose to continue on in particular situations. For example, Liza enacted agency when she persevered with her research even after she learned about her principal's plan to have first graders switch for guided reading, disrupting her original research plan. During one of my visits to her classroom, Liza said that if she was still in graduate school she might have pushed back more, using the excuse of collecting data as a reason not to switch for guided reading. Instead, Liza decided to change her research question to investigate the effects of switching for guided reading on her students' reading levels. Although this may first appear as if the school chose her research topic, Liza practiced agency by questioning whether the mandate on

how to teach reading was worthy. This example demonstrates perseverance, as part of Liza's inquiry stance, because it shows that instead of giving up when faced with a challenge, Liza instead questioned the people in charge, her administration.

Another way that Liza persevered was her shift in focus from individual students to the entire first-grade team. Soon after the teachers began switching for guided reading, Liza realized that the groups would change every four weeks, based on the TRC assessment. This would not allow Liza to focus on a particular group of students because she could potentially have new students in her reading groups every month. Again, instead of stopping her research, Liza decided to look at how switching for guided reading impacted her class as well as the entire first-grade team. Liza's need to understand if this change was for the best, propelled by her sense of perseverance, shaped her inquiry stance. This example also demonstrates how Liza extended her inquiry beyond the walls of her classroom to include all first-grade students. By doing this, Liza potentially impacted many students, besides just those in her classroom, and she showed other teachers the type of understanding that could be gained from teacher research.

**Leading the way.** This theme highlights instances when Liza demonstrated agency as she took a leadership role in her school. Leading the way shaped Liza's inquiry stance because it helped her make changes and assisted her in informing others about practices in which she believed. Liza's ability to lead the way developed over time as she got to know her new principal. For example, although Liza described herself as "go with the flow," in our second interview she shared one example of how she "pushed back" against administration. It all happened last year when her principal came into her

classroom while she was teaching *Words Their Way* and said, “I am not sure if that is how the program was meant to be implemented.” When Liza met with the principal later, she told her, “I am pretty sure this is how it is done because I was taught by one of the authors.” Liza’s principal never questioned her teaching of word study after that. Because Liza felt confident and had expertise in an area, having taken a graduate class with Francine Johnson, one of the authors of *Words Their Way*, she was able to demonstrate agency by voicing her opinions and taking the lead as an expert about an instructional method. Liza described this agency by saying that teacher research “gave me the backbone to go talk to my principal. I don’t think I would have had the guts to talk to her before.” Thus, she took the lead as an expert in her field and as a result changed the way her principal understood a specific instructional strategy.

Liza also led the way during a data team meeting that I was invited to attend. Each of the five first-grade teachers sat around a table in the small conference room next to the principal’s office. The principal was running late and instead of waiting, the teachers decided to get started by writing names of students on sticky notes and placing them in columns under guided reading levels PC-N. The expected reading level for first grade at the end of the year is a level J. It was clear before all of the sticky notes were even up that the majority of students in first grade were well below grade level. Each teacher finished writing their students’ names and placing them in the columns. Then Liza, with her computer hooked up to the smart board, started entering the level of each child into an existing spreadsheet. The purpose of this was to determine if students needed to remain in their current guided reading groups or move up or down a leveled



group. When I asked Liza later about this, she said that she did this because that is what the principal had done last time. Since the principal was not there yet, she thought they could get started; Liza was leading the way at this meeting. It was during this time of seeing what students had grown or stayed the same that Liza posed the question to her colleagues about their individual class growth. None of the other teachers were able to answer. Liza, in contrast, had these numbers already figured and each student was color coded for easy reference on a sheet of paper she brought with her. This was part of the data from her study and this example highlights how Liza's research helped her take steps to really know her students rather than waiting for a data team meeting and a principal to tell her who had grown and who had not. This change in how she took personal responsibility for her students' data revealed another way that Liza led the way during the data team meeting and evoked agency.

**Sharing research.** Liza shared her research with others in hopes of impacting change. At the start of this teacher research project, Liza was uncertain about her prospective audience. In an interview, she explained, "Maybe my administration?" (Interview 1). When asked if she would share the results with her colleagues, Liza responded, "I would share it with them, but I am not sure that they would be keen on listening to it." This quote revealed Liza's trepidation of sharing her research with her colleagues. When enrolled in the graduate class, her colleagues understood that she "had" to do research, but once she had her master's degree they were perplexed by her desire to continue researching. They did not understand why she would want to continue something that was no longer required, and took lots of energy and time. Despite the lack

of support and potential audience within her particular context, Liza enacted agency by choosing to continue with teacher research.

Liza also displayed agency by thinking about other audiences for her work. For example, Liza planned to adapt her final paper from the graduate class and submit it as an article for the *Reading Teacher* (Interview 3). She had a subscription to that journal and was very excited about the possibility of having her research featured in a publication that “other teachers read.” Right now Liza is focused on being a new mom. Time will tell whether or not she chooses to seek publication for her work. In summary, agency was a central component of Liza’s inquiry stance, which was strengthened over time as she persevered, led the way, and shared her research.

### **Summary of Inquiry Stance**

An inquiry stance guided my understanding of how Liza approached teaching and research in phase two of this study. The data revealed that Liza’s inquiry stance was different than the year before in some ways including how she reflected, the way she built her pedagogical content knowledge, and the ways she enacted agency. Liza used inquiry to help her systematically reflect and utilize formal and informal assessments so she could take action to improve students’ learning. In the next section, I draw attention to how Liza’s inquiry stance shaped her literacy instruction in order to answer the second research question in phase two of this study.

### **Literacy Instruction**

An inquiry stance illuminates the complexities of teaching because it involves teachers asking questions about their practice such as: What am I doing? Why am I

doing it that way? What impact is it having on learners? (Nolan & Hoover, 2004, p. 144).

It was important to understand how Liza constructed and enacted an inquiry stance in order to see how that stance shaped her literacy instruction. This section addresses the second research question in phase two: How does an inquiry stance shape Liza's literacy instruction?

There is little research investigating the effects of taking a teacher research course on any subsequent literacy teaching practices (Massey & Duffy, 2004), nor are there many studies specifically examining how an inquiry stance shapes literacy instruction (Lytle, 2000). Using the constructs of reflection, pedagogical content knowledge, and agency to guide my analysis, I sought to understand how Liza used teacher research as a way for her to engage in effective literacy teaching. In the next section, I use observation data to show how her teacher research impacted her habit of mind (i.e., her thought process) as she teaches guided reading lessons to her students. Table 17 highlights the breadth of examples seen in the data of how an inquiry stance shaped Liza's literacy instruction. Over the course of my time in Liza's classroom, I observed 27 guided reading lessons. Next, I share detailed analysis from several of these observations which reveals specific themes related to literacy instruction and the conceptual framework of an inquiry stance.

Table 17

## Analysis of Liza's Literacy Instruction

Construct of Inquiry Stance	Theme	Number of Examples in the Data
Reflection	Reflections Before a Lesson	13
Reflection	Reflections During a Lesson	22
Pedagogical Content Knowledge	Differentiating Instruction	20
Agency	Strategy Instruction	15

**Reflection and Literacy Instruction**

Reflection can play a role in changing teachers' practices (Vogrinc & Zuljan, 2009). When teachers have an opportunity to reflect, they can thoughtfully assess what they are doing well and what they need to work on. This type of honest reflection can propel teachers to take action and address areas in their teaching that could be improved. To illustrate how Liza's purposeful reflection shaped her literacy instruction, I share details from my observations in her classroom in the middle of February. The two examples center on teaching first graders how to retell a story. Although these guided reading lessons might appear very typical, there were elements of Liza's reflection embedded within that are highlighted below.

**Reflections before a lesson.** During one of our informal conversations before an observation, Liza reflected about one of her new groups for guided reading. She stated that she recently learned from the students' teachers that they all struggled with retelling. Based on that reflection, she altered her original lesson plan to specifically target retelling

skills and generate ways for the students to interact with each other. Liza reflected that she hoped student interaction would foster literacy learning and provide opportunities for students to feel welcome and accepted.

Liza passed out the book, *A Box Can be Many Things* to each student. “I want you to think about how you can put the events in this story either in the beginning, middle or the end,” said Liza. After the students finished reading the book, Liza asked what retelling meant. The group was quiet so she tried again. One of the boys responded, “Retelling is saying what happened in the book in your own words.” Liza posed questions to the group: What happened in the beginning? What happened in the middle? What happened in the end? Then Liza grouped the students in pairs and they turned to face each other. She told each student who was Partner A and who was Partner B. Partner A told Partner B what happened in the beginning, middle, and end of the story and Partner B listened. Then they switched and Partner B told Partner A what happened in the beginning, middle, and end of the story. As they talked, Liza listened.

This example highlights how Liza’s reflection before the lesson impacted how she taught. Liza recognized prior to teaching that she was unfamiliar with the students and they were unfamiliar with each other, thus she planned a lesson that had them work with partners. The decision to do this was prompted by her research on guided reading that promotes interaction. By doing that, Liza fostered student-led conversation by using talk purposefully in her classroom to build community, while at the same time strengthening students’ retelling skills. Liza’s reflection, fostered by her teacher research, supported

her understanding of students' needs as readers. She purposely planned this lesson based on her reflection.

**Reflections during a lesson.** In this section, I share how Liza often reflected during lessons and how that impacted her teaching. As Liza taught, she noted on her lesson plan how differently the students were responding to each other. For example, Sally and Tim (pseudonyms) were not always using the words in the beginning, middle, and end in their retelling. Instead, Sally said, "at the start" and Tim said, "when it finished." Liza told me later in an informal conversation that because she reflected during the lesson, she was able to offer additional support regarding retelling to each pair of students. She quietly guided Sally and Tim to incorporate the vocabulary of retelling used in first grade (i.e., beginning, middle, and end) into their retellings. I also noticed that Liza asked higher-level questions while at the same time encouraging student self-regulation (Taylor, Peterson, Pearson, & Rodriguez, 2002; Wharton-McDonald, Pressley, & Hampston, 1998). Using these strategies during the lesson supported the students' literacy learning. The students showed a strong understanding of retelling, specifically identifying the beginning, middle, and end of a story by the conclusion of this guided reading session, which was evident through their conversations and Liza's verbal assessment of this concept.

This example draws attention to how Liza reflected during a lesson and how that shaped her instruction. For example, this particular group of students needed additional support with using the vocabulary of retelling expected in first grade. Even though she "should" have gone on to cover other concepts such as using transition words in retelling,

she did not because her students needed more time with this one. Liza's research on guided reading shaped her reflection because it made it easier for her to reflect in the moment and problem solve immediately. Liza knew when to alter the content or work for students in need. Reflection is a key component of effective literacy teachers and teacher researchers (see Cochran-Smith & Lytle, 2009; Harris, 1998). Liza's inquiry stance shaped her actions in regards to her literacy instruction revealing that reflection can play a role in changing teachers' practices (Vogrinc & Zuljan, 2009).

### **Pedagogical Content Knowledge and Literacy Instruction**

An important aspect of pedagogical content knowledge is the ability of teachers to transform subject matter knowledge in a way that it is comprehensible to others (Mishra & Koehler, 2006; Shulman, 1987). One way teachers learn what their students need is by noticing moments in their teaching and responding to those moments (Russ & Luna, 2013). Liza illustrated how her literacy instruction was impacted by her pedagogical content knowledge through differentiating instruction. Pedagogical content knowledge can assist with differentiation because teachers know which teaching approaches fit the content and how specific elements of that content can be arranged for better teaching (Mishra & Koehler, 2006). To illustrate how Liza used pedagogical content knowledge to differentiate instruction, I share details from my observations in her classroom in the middle of March when she was teaching students how to construct sentences during guided reading. One example was chosen out of the 18 times I saw Liza differentiate during guided reading in order to specifically show differentiation in one particular lesson.

**Differentiating instruction.** In the following example, Liza used differentiation to help students construct sentences. Although at the time Liza was still meeting with two guided reading groups a day, the principal had arranged the groups across the first-grade team so that each teacher was working with students, according to the formal assessments, on the same reading level.

After reading the book *Animals I Like to Feed* in their guided reading group, students wrote on their white boards: I like to feed \_\_\_\_\_. One of the girls wrote: *I like to feed the dog* “What comes at the end of your sentence?” asked Liza. “A period,” the girl said and she added that to her sentence. As the students were writing, Liza noticed there was a big variation in their ability to construct sentences. For example, some students did not use capital letters at the beginning of their sentences, while others left off punctuation marks. After each student wrote one sentence on the white board, Liza gave the students paper and a pencil. She asked them to choose a different animal and write another sentence. Liza had the students read their sentences aloud, providing an additional opportunity to notice the connections students made between reading and writing. For example, Liza noticed if the students could read what they wrote and if they made corrections to their writing after they read it.

Liza’s knowledge of pedagogy (i.e., how to support students during sentence construction) and content (i.e., why this supports students’ reading) allowed her to differentiate literacy instruction during guided reading because she noticed what skills her students had mastered and which ones they still needed to work on. Liza’s research on guided reading supported her differentiation because she had a stronger understanding



of each student's strengths and weakness as readers. I saw in later observations how she used this knowledge to plan and alter her teaching accordingly. For example, later that week, the students worked in pairs to construct sentences. Liza purposefully paired students to build on each other's strengths (i.e., she paired Ann with Jesus (pseudonyms) because Ann struggled with punctuation and Jesus with capitalizations). As they worked together, the students supported each other's understanding.

Although the formal assessments suggested that the students within each guided reading group were at the same reading level, Liza's research, which included observations and the incorporation of sentence construction into her guided reading time, helped her further differentiate instruction. Using different types of assessments yields the best information regarding student understanding and progress and is a characteristic of an effective literacy teacher (Applebee, 2002). Liza shared that she planned to do additional informal assessments to better understand this group's particular needs.

Liza demonstrated her pedagogical content knowledge by being a problem solver. This is also indicative of a teacher who has an inquiry stance. The way Liza noticed during guided reading reflected her inquiry stance because she not only sought to understand moments in her teaching, she specifically responded to those moments (Russ & Luna, 2013).

### **Agency and Literacy Instruction**

Agency is the capacity to take actions based on independent choices. In this phase of the study, Liza demonstrated agency by adapting her literacy instruction to align with her beliefs about effective literacy instruction. For her, this meant a focus on

nonfiction texts. Liza's plan to investigate the use of nonfiction texts, however, was altered by her principal's plan to switch among the first-grade teams for guided reading. Despite that barrier, I saw Liza make a conscious attempt to use many nonfiction texts during guided reading. Prior to this year, Liza shared, "I didn't pay attention to the book. I didn't just pick fiction or nonfiction, I just picked a book that the group would find interesting" (Interview 1). Although genre did not end up being the topic of her research, she knew that it was an area that she needed to not only be aware of, but to address in her classroom. In addition, the small amount of research she did impacted the choices Liza made as a teacher and shaped her instruction of this genre of text.

To illustrate how Liza enacted agency, one of the constructs of her inquiry stance that impacted her literacy instruction, I share details from my observations in her classroom. Over more than 72 hours of observations in Liza's classroom, I saw examples of Liza enacting agency within guided reading 15 times. I chose these examples because they demonstrate agency as well as highlight how Liza attempted to address an area of her teaching, incorporating nonfiction texts, which she perceived as weak. She did this specifically through strategy instruction.

**Strategy instruction.** There were not many nonfiction guided reading texts for Liza to choose from, but she knew that using this genre during guided reading was important because her students needed to be able to decode and comprehend a variety of texts (Interview 1). Two common strategies that first-grade teachers model with students to support them in decoding words are to look at the picture and to look at the beginning

letters of the word. In this example, Liza supported her students' use of these strategies while working to build the word consciousness needed for this particular nonfiction text.

Each student read the book *In the Sea* quietly aloud and at his or her own pace. As Liza listened to the students read, she took notes. After they were done reading she said to the group, "Turn to the page with the turtle. I noticed that on this page everyone said green." She wrote green on the small white board. "Let's look at the word in the book. What does this word say?" One student guessed gray. "You saw the g and it matches the sound. And turtles can be green or gray so that makes sense but this word is giant. Let's all read that sentence together."

This example draws attention to how Liza taught decoding skills in her guided reading group by having students look at the picture as well as the first few letters of the word with which they were struggling. Exposing her students to nonfiction texts during guided reading expanded the types of words they decoded. Color words are something first graders learn how to read and spell. Liza's students may have seen the words gray and green in fiction texts, but multiple exposures to these words in a variety of genres help students solidify their understanding (Taylor, 2007). By purposefully choosing to incorporate nonfiction texts into guided reading, despite not feeling as comfortable with this genre, Liza demonstrated agency. Her research on this topic, although for a short time, caused her to recognize the importance of incorporating nonfiction texts into guided reading. In addition, this example highlights her inquiry stance because it shows that her fear did not limit her desire to support students' literacy learning.

One of the ways Liza taught her students new strategies for reading and comprehending nonfiction texts was by having students check information. This meant that they went back to the text after reading to find where the information they remembered was located. In this example, day two of using the guided reading book *In the Sea*, Liza taught her students this strategy.

After the students finished reading the book, Liza asked, “Can you remind me what are some of the things that live in the sea?” As they shared the animal names, Liza asked them go back and refer to the page with that animal. Once they had confirmed that animal was in the text, she wrote the animal’s name on the board. By doing this, Liza was teaching the students a strategy to use when reading nonfiction text, to check information. In first grade, this meant looking back at the pictures and text. One of the students mentioned a dolphin, but when she went back to find that page, she realized that there was no dolphin in the book. Instead, it was a whale. The student corrected her original thought and Liza wrote whale on the board.

This example illuminates how Liza used the specific strategy of checking information to support her students’ comprehension of nonfiction texts. Liza demonstrated agency in this example by showing that she was open to changing how she taught guided reading (i.e., incorporating nonfiction texts). This attitude toward instruction is characteristic of an effective literacy teacher (Brooks, 2007). In addition, effective literacy teachers provide active instruction with modeling and demonstration to help all students gain understanding (Allington, 2002). Liza did this when she modeled going back to the text to check information. Liza’s agency, as part of her inquiry stance,

shaped her literacy instruction because she made changes to how and what she taught—incorporating nonfiction texts into guided reading and teaching students skills that are specific to these texts. When I asked her if any of the other teachers were planning similar lessons she said, “No. I just know that my students need more exposure to nonfiction texts” (Interview 3). For this reason, Liza incorporated more of these types of texts into her guided reading time. Liza’s inquiry stance supported these acts of agency as she tweaked her teaching based on what she thought was lacking in her literacy instruction. This example demonstrates that despite the mandates of her administration that altered the choice of her research topic, Liza found a way to impact her instruction based on her original focus, nonfiction texts. Thus, she made her own instructional choices despite being pulled in other directions.

### **Summary of Literacy Instruction**

Liza’s interviews and artifacts revealed that shifts in her literacy instruction were driven by her inquiry stance as she reflected, enacted pedagogical content knowledge, and demonstrated agency. Viewing her literacy instruction through the lens of teacher research assisted Liza in facilitating a more systematic approach to effective literacy teaching because she questioned her practice, re-envisioned her understandings about teaching, reflected, and shared knowledge gained from this process with others. Specifically, Liza’s teacher research helped her become better at teaching reading by supporting her desire to help students with the skills of decoding and retelling, differentiating instruction within the guided reading groups, and incorporating nonfiction texts into small group instruction.

Liza's experience aligns with research that states how teachers who incorporate teacher research into their everyday teaching practices, in a systematic manner, are likely to be more effective in their teaching because they are focused on the learning needs of individual students and are working to better understand their teaching (Cochran-Smith & Lytle, 2009). This may be because teachers with an inquiry stance have a problem-solving orientation (Falk, 2004). Liza's inquiry stance, as described in the first section of this chapter, played a large role in her moving beyond thinking about altering her literacy instruction to actually taking steps to do so. Specifically, Liza was able to reflect in the moment while leading guided reading groups, which made a difference in her literacy instruction because she was able to recognize if something was not working and take steps to change it. Liza's new pedagogical content knowledge helped her problem-solve for those reflective moments which assisted her in making decisions about the instruction from which particular students would benefit. This led to Liza acting on these realizations about her literacy instruction despite a context that did not support those actions. Liza's way of practicing agency within the limitations of a school context was seen as she chose to investigate a practice, switching for guided reading, that she was told to implement, rather than simply accept that this was in the best interest of students because her administration said so. In addition, Liza wanted to understand students' learning within the groups in order to provide the best possible instruction (Allington, 2013; Block et al., 2002; Taylor, 2007). Teacher research fostered Liza's efforts to be an effective literacy teacher by providing evidence that supported these actions.

### **Conclusion of Findings from Phase Two**

This case study represents three constructs of an inquiry stance: agency, pedagogical content knowledge, and reflection. They are specific to Liza and shaped how she constructed and enacted an inquiry stance at her school. These constructs were observed frequently during classroom observations as well as within various artifacts such as Liza's plethora of sticky notes related to her research. They were also heard repeatedly during casual conversations and structured interviews. These constructs helped provide important insights related to the research questions.

Liza's case study shows that an inquiry stance is not something that a teacher has or does not have; rather, perhaps it exists on a continuum, influenced by internal and external factors. Cochran-Smith and Lytle (1999) write that the metaphor of a stance is intended to capture "the ways we stand, the ways we see and the lens we see through" (p. 289). In this quote *ways* is emphasized suggesting that an inquiry stance is specific to the individual and each person's stance is valuable. Liza's case study also revealed that her inquiry stance shaped her literacy instruction, specifically in the area of guided reading. This finding contributes to the conversation regarding the effects of a teacher research course on subsequent literacy instruction (Massey & Duffy, 2004). Liza's inquiry stance infiltrated almost every aspect of the hour she spent each day with students during guided reading instruction. In the next chapter, I suggest theoretical and practical implications related to these findings, as well as additional ways to continue to seek understanding of inquiry stance.

## **CHAPTER VI**

### **DISCUSSION**

The process is overwhelming but it is helpful and will make me a better teacher.  
~ Kate

This dissertation began with my story as a teacher researcher, and throughout the course of this document I have shared with you the stories of Kate, Tiffany, Jane, Donna, and Liza. This research highlights two case studies. I first examined how teachers constructed and enacted an inquiry stance within the context of a graduate class and thus changed their literacy instruction as a result. As the above quote from Kate illustrates, the process of learning how to research was at times overwhelming for the teachers, but each of the five teachers in this study successfully completed their project, demonstrated aspects of an inquiry stance, and their literacy instruction was impacted as a result. Then I focused on one teacher, Liza, to better understand how an inquiry stance continues to be constructed and enacted as she researched on her own, and the impact that stance had on her literacy instruction. To conceptualize an inquiry stance, the constructs of reflection, pedagogical content knowledge, and agency were used to guide analysis.

#### **Discussion of the Findings**

The findings of the study are shared and interpreted as related to the research questions below. These questions also guided the sources of data used in this study, which included interviews, observations and artifacts such as research journals, final



papers, exit slips, and analytic memos. Analysis of these data sources revealed themes in each phase of the study which assisted in answering the research questions.

### **Phase One**

The first research question in phase one asked: In what ways do teachers construct and enact an inquiry stance within a graduate class on teacher research? The teachers constructed and enacted inquiry stances differently, which was seen through their reflection, pedagogical content knowledge, and agency during the year-long graduate course. In this study, the teachers engaged in reflection as a continuous process, which encouraged them to think about their own experiences, their teaching, and their students as they engaged in research. The reflective activities the teachers engaged in during the class helped raise the visibility of their thinking (i.e., while examining definitions of teacher research and while analyzing previous pedagogy). This is important because it fostered an intentional “reflective habit.” For example, Tiffany shared that teacher research *facilitates a closer observation of each student and their particular need*. As stated in her journal, when Tiffany focused her attention on a small group of students, she realized that her understanding of her students was wide but not deep.

In addition, conducting teacher research added to the teachers’ pedagogical content knowledge when they synthesized relevant literature and engaged in systematic inquiry. The teachers in this study revealed that pedagogical content knowledge is an important component of an inquiry stance as they remained open to new understandings about their practice and recognized that this understanding can come from different sources. As shown in the case of Donna, who through her readings and teacher research

on vocabulary discovered, *good readers and those with good vocabularies just don't know those strategies, they have knowledge of words* (Final Paper). This realization impacted Donna's larger understanding of vocabulary instruction and made her want to make changes to how she was teaching this subject. Furthermore, the teachers displayed agency in different ways and were supported uniquely in their efforts. The teachers used research as a tool; it was the catalyst that made them take action when before they may have only thought about making changes without taking steps to do so. Constructing and enacting an inquiry stance has implications for the ways in which teachers incorporate new perspectives of teaching—habits of mind—into their everyday professional practices.

The second research question in phase one asked, "How does an inquiry stance shape their literacy instruction?" Analysis of the data revealed that reflection played a key role in helping the teachers first identify what they wanted to change about their instruction and then supported them in providing literacy instruction in more explicit and systematic ways. The findings showed, for example, how Kate's reflection enabled her to shift from teacher-focused choices to more student-focused, where students felt ownership of their literacy learning and progress. In addition, although each teacher in this study had practical knowledge of the literacy topic they chose to investigate, using the lens of a researcher broadened and deepened their understanding of that knowledge. The teachers in phase one of the study took specific action based on the findings of their research to change their literacy instruction. In some cases, the teachers shared these changes with others. For these teachers, it was not enough to only think or learn about making changes; they took action based on their reflection and new understanding.

## **Phase Two**

The first research question in phase two asked, “In what ways does a teacher construct and enact an inquiry stance within the context of her elementary classroom?” Using formal and informal conversations, artifacts such as lesson plans and data charts, and 72 hours of classroom observations, I was able to identify instances of Liza’s inquiry stance in her talk and in her actions. Analysis revealed that Liza’s reflection was an important component of her inquiry stance because it allowed her to see aspects of her teaching she wanted to improve and it helped guide her to plan research to address those needs. Thus, reflection about practice became a habit of mind and it shaped several aspects of her teaching. The word noticing is how Liza described her development of pedagogical content knowledge while researching on her own. Although her observations were mentioned in phase one, they were not as central to her understanding as they were during phase two. In particular, the focus on noticing rather than reading literature illustrated how she generated her own knowledge about content and pedagogy. Additionally, data from the case study revealed that Liza’s level of agency changed as she conducted her research. Specifically, the more data she collected, the more she felt like an expert and the more agency she demonstrated. Although Liza valued the information she gained from reflection and the knowledge from noticing, she also wanted to do something with what she learned. The ways Liza took action provides insight into how agency shaped her inquiry stance. The data revealed that Liza’s inquiry stance was different than the year before in some ways including how she reflected, the way she built her pedagogical content knowledge, and the ways she enacted agency. Liza used inquiry

to help her systematically reflect and utilize formal and informal assessments so she could take action to improve students' learning.

The second research question in phase two asked, "How does an inquiry stance shape her literacy instruction?" Liza's literacy instruction continued to be shaped by her inquiry stance the year following the graduate class. This was highlighted through detailed analysis of specific literacy instruction. Data sources such as interviews and artifacts revealed that shifts in her literacy instruction were driven by her inquiry stance as she reflected before and after a lesson, used pedagogical content knowledge to differentiate instruction, and showed agency through strategy instruction of nonfiction texts.

Viewing teaching through the lens of teacher research assisted Liza in facilitating a more systematic approach to effective literacy teaching because she questioned her practice, re-envisioned her understandings about teaching, reflected, and shared knowledge gained from this process with others. Liza's case study revealed that her inquiry stance shaped her literacy instruction specifically in the area of guided reading. For example, this study showed that Liza's research on guided reading shaped her reflection because it made it easier for her to reflect in the moment and problem solve immediately. Liza knew when to alter the content or work for students in need. In fact, Liza's inquiry stance infiltrated almost every aspect of the hour she spent each day with students during guided reading instruction. The examples in Chapter V highlight the ways that Liza noticed during guided reading, which reflected her inquiry stance, because she not only sought to understand moments in her teaching, but she specifically

responded to those moments. Thus, Liza's inquiry stance played a large role in her moving beyond thinking about altering her literacy instruction to actually taking steps to do so.

In summary, during phase one of this study all five of the teachers demonstrated aspects of an inquiry stance as defined by reflection, pedagogical content knowledge, and agency within the context of the graduate class. In phase two, Liza continued her inquiry stance the year following the course. Although Liza was the only teacher who successfully completed her second research inquiry, there is a lot to learn from all five teachers in this study. Their story of teacher research is not over yet because this study extended the conversation about inquiry stance beyond the context of a graduate class. It highlights the realities of researching in today's schools. Thus, there are theoretical and practical implications to be gained as well as suggestions for future research. I share those in the next section.

### **Theoretical Contributions**

This study contributes to the theoretical understanding of an inquiry stance in two ways: (a) adding descriptive and concrete characteristics to a conceptual framework of inquiry stance; and (b) demonstrating that an inquiry stance is dynamic and fluid, meaning that teachers enact and construct an inquiry stance in different ways depending upon the context. In addition, the study highlights teachers' voices, both in the context of a graduate class and a first-grade classroom as educators constructed and enacted an inquiry stance while engaging in teacher research.

### **Adding Descriptive and Concrete Characteristics**

The framework I used, derived from the literature, helped me understand how teachers construct and enact an inquiry stance and how an inquiry stance shapes literacy instruction. An inquiry stance positions the teacher as creator of his or her own knowledge, which involves thinking differently about what teachers do and why they do it (Cochran-Smith & Lytle, 2009). In Chapter II, I noted that previous research suggested that the notion of an inquiry stance was abstract and that more research was needed to further conceptualize this stance (Donnelly et al., 2005; Massey & Duffy, 2004). In addition to understanding how teachers enacted an inquiry stance, I also learned more about the constructs that encompass this stance. This study adds descriptive characteristics to an abstract framework through the constructs of reflection, pedagogical content knowledge, and agency. Each of these constructs offers unique opportunities for teachers to learn in an ongoing process and engage in a habit of mind which is different than thinking of teacher research as set of steps (Lamb, Philipp, Jacobs, & Schappelle, 2009). This is important because it provides teachers with an opportunity for generative growth that enables them to take ownership of the construction of their own knowledge (Franke, Carpenter, Levi, & Fennema, 2001).

Figure 2 shows the revised conceptual framework based on the themes revealed in phases one and two of this study. These descriptive characteristics help further clarify what an inquiry stance may look like in practice.

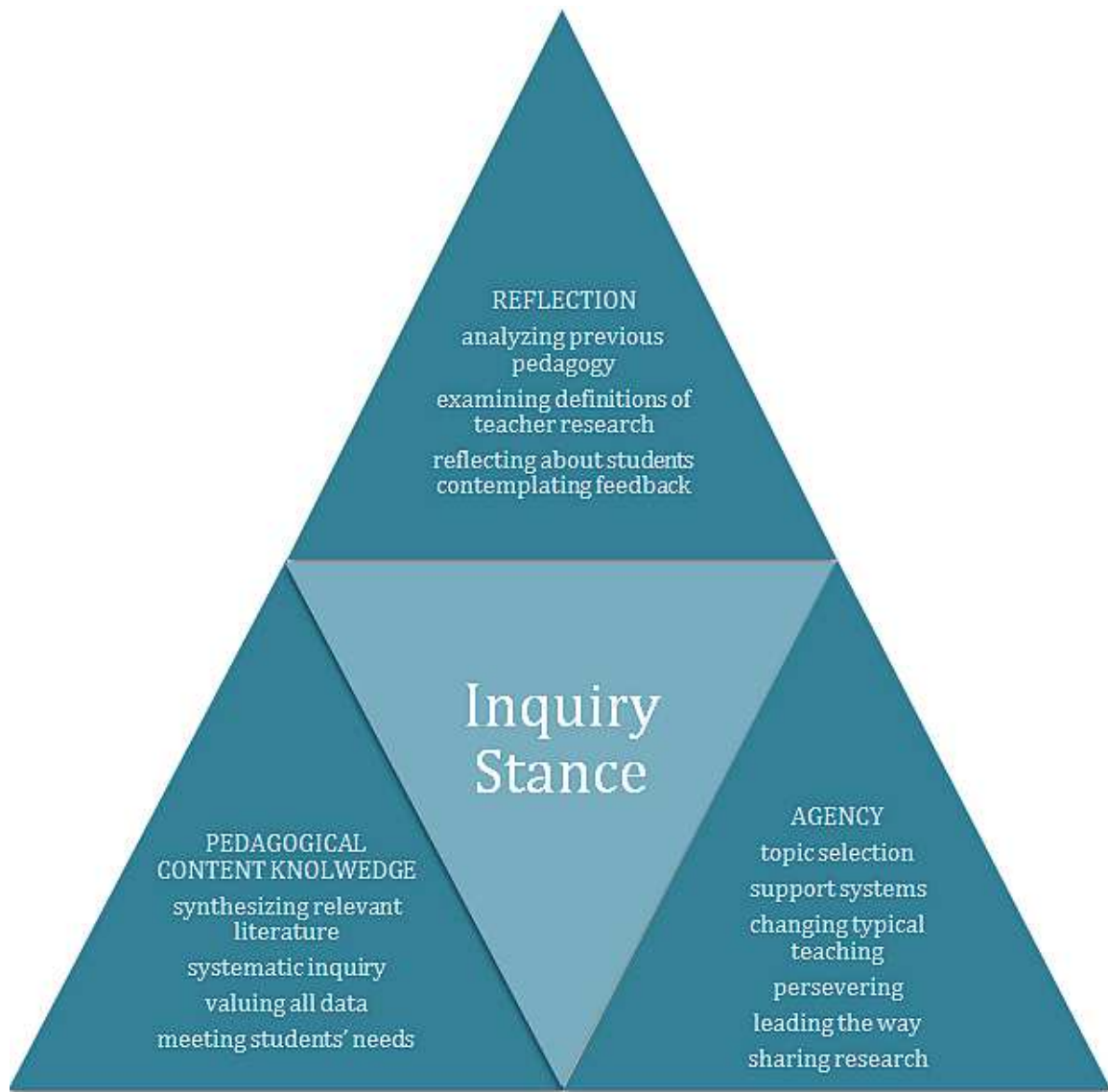


Figure 2. An Inquiry Stance Revisited.

**Reflection.** To describe an inquiry stance, scholars often discuss the significance of teacher reflection (Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004; Nolan & Hoover, 2004; Olson, 2000). To define reflection, most of the research draws from Schön's (1987) work, which sees reflection as the ability of teachers to think about what they are doing, while they are doing it (in action), as well as reflecting afterwards (on

action; Cochran-Smith & Lytle, 2009; Dana & Yendol-Silva, 2004). The literature reveals that reflection is central to an inquiry stance in three ways: (a) because growing evidence shows that teachers' abilities to reflect on their instructional practice affects students' learning (Cochran-Smith & Lytle, 2009; Darling-Hammond, 2006; Wong, 1995); (b) because it assists teachers in becoming problem solvers, leading to new insights for practice (Marcos et al., 2009; Olson, 2000); and (c) because it allows teachers to combine theoretical knowledge with their understandings of practice (Pilkington, 2009; Vogrinc & Zuljan, 2009).

This dissertation study contributes to existing research because it highlights that reflection, as part of an inquiry stance, is a way for teachers to solve problems. Thinking of reflection in this concrete and descriptive way assists in illuminating it in practice. Reflection also assisted the teachers in realizing that the understandings they generated about their teaching and students were as important as those shared by the experts in the field (Zeichner & Liston, 1996). These findings support the work of Cochran-Smith and Lytle (2009), who advocate that one of the four dimensions of an inquiry stance is "a perspective on knowledge that . . . puts forward a concentration of local knowledge in global contexts" (p. 126). This is what was seen in phase one and phase two of this study as the teachers engaged in reflection and as a result had a different perspective on what they could contribute to their field. For example, teachers such as Kate were interested in sharing her research within the context of her school while other teachers such as Tiffany and Liza extended the audience of their work to other teachers beyond their schools.



In addition, this study showed how engaging in multiple verbal and written reflections, as part of a graduate class, was particularly essential in assisting teachers in exploring not only how they taught, but also in identifying areas of need in their classrooms. Reflection, although less formal, was similarly an important component of Liza's inquiry stance because it helped her recognize an aspect of her teaching she wanted to improve—the use of nonfiction texts during guided reading. Reflection also aided Liza later as she struggled to determine how to adjust her research after learning that all first-grade students would be switching for guided reading. In addition, the teachers in phases one and two of this study engaged in reflection, showing their openness to new ideas, which is critical to developing an inquiry stance (Snow-Gerono, 2003). Openness is important to developing an inquiry stance because it means that teachers may be more likely to question their practices and take action toward strengthening their teaching.

In summary, the above data highlights how reflection, as part of an inquiry stance, can be a visible and tangible characteristic. The ways teachers engaged in reflection in both phases of the study remind us of that and offer insight into how reflection may change in various contexts (i.e., a graduate class versus a classroom).

**Pedagogical content knowledge.** Pedagogical content knowledge contributes to understanding inquiry stance by the ways teachers understand content (the what of teaching) and the ways teachers understand pedagogy (the how of teaching). The findings from this study support another one of the four dimensions of inquiry stance as proposed by Cochran-Smith and Lytle (2009): “an *expanded* view of practice as the

interplay of teaching, learning, and leading” (p. 127). This was seen as teachers’ inquiry shaped the what and how of teaching in phases one and two of this study.

As mentioned before, the literature related to pedagogical content knowledge and inquiry stance is less abundant, but it does exist (Dana & Yendol-Silva, 2004; Shulman, 2004; Stern, 2014; Yendol-Hoppey et al., 2008). Specifically, studies show that (a) an inquiry stance can assist teachers in better understanding the content they teach (Mishra & Koehler, 2006; Yendol-Hoppey et al., 2008); and (b) an inquiry stance can also assist teachers in better understanding pedagogy (Cochran-Smith & Lytle, 2009; Stern, 2014).

This dissertation study contributed to existing research by demonstrating the importance of pedagogical content knowledge as part of an inquiry stance. The data revealed examples of teachers building their pedagogical content knowledge which provides descriptive and concrete characteristics of this construct’s impact on an inquiry stance. For example, teachers shared that they added to their pedagogical content knowledge by engaging in research groups during the graduate class. The research groups provided a safe space for teachers to be vulnerable which sometimes related to their pedagogical content knowledge. Tiffany wrote that her group helped her realize, *I don’t have to understand everything in order to make contributions in the areas that I am strong in* (Research Journal). Teacher research opens teachers to the idea that they do not have to know it all but this is one way to learn a little bit more. When Liza researched on her own the following year, she said that she did not really miss having a research group, yet she relied on me to bounce ideas off and share her understanding of the data (Interview 3). Although different, Liza still built her pedagogical content knowledge

through interaction, negotiation, and collaboration with her colleagues as she researched the impact of switching for guided reading.

This study also contributes to the research on inquiry stance because it highlights how teachers differed in the ways they built pedagogical content knowledge while engaging in inquiry. Donna relied heavily on her readings about vocabulary instruction to guide her understanding because this area of instruction was less familiar to her. In contrast, in phase two, Liza did no additional reading on her topic of switching for guided reading and instead used her noticings—understanding of a moment and her response to that moment (Russ & Luna, 2013)—as the driving force behind her research. The importance of learning to notice student responses during literacy instruction is highlighted in numerous research studies (Clay, 2005; Pinnell, 1997). Research shows that influential literacy teachers are able to notice students' thinking during instruction and provide responses that clarify or validate their understandings (Lyons, 1993; Ruddell, 2004), which is the same thing as Schön's (1987) description of reflection in action. In addition, noticing helps teachers effectively adapt instructional strategies and materials and act accordingly (Ross & Gibson, 2010). Pedagogical content knowledge and noticings are key components of an inquiry stance because they guide teachers' understanding of their profession.

Most of the teachers blended these two approaches, recognizing that they can learn from teaching as well as learn for teaching (Darling-Hammond & Bransford, 2005). Pedagogical content knowledge is an important component of an inquiry stance because

it helps teachers remain open to new understandings about their practice and recognize that understandings about content and pedagogy can come from different sources.

In summary, the above data highlight how pedagogical content knowledge can be used to better understand an inquiry stance. The ways teachers built pedagogical content knowledge in both phases of the study reveal how teachers choose to learn about their practice while engaging in inquiry.

**Agency.** The literature linking agency and inquiry stance reveals how inquiry shapes teachers' agency (Alsop et al., 2007; Cochran-Smith & Lytle, 2009; Lieberman & Miller, 2001). To further understand how agency within an inquiry stance is enacted, I examined Lytle's (2000) review of teacher research literature. She found that individual teacher research initiatives fell under three types of change: (a) individual, (b) institutional, and (c) societal.

This study contributes to the current research on inquiry stance by envisioning agency as occurring when people are able to "imagine and create new ways of being" (Holland et al., 1998, p. 5). Thinking of agency in this way supports understanding the descriptive and concrete characteristics of this construct. For example, in phase one Jane shared that engaging in research as a "young teacher" made her feel more like a "master teacher" and "more confident in my own ability as a teacher." Jane experienced a new way of being, that of a master teacher, after she engaged in teacher research. In phase two, it was clear that the more data Liza collected, the more she felt like an expert and the more agency she demonstrated. For example, near the end of the study, Liza took an active role in the leadership team meeting, something she would not have considered

doing previous to conducting research. It took time for Liza to see herself as someone who could speak up about the findings from her study, but what matters is that she eventually did.

The findings from this study also support a third dimension of Cochran-Smith and Lytle's (2009) inquiry stance: "the *position* that the overarching purpose of practitioner inquiry is to provide education for a more just and democratic society" (p. 127). The teachers in phases one and two of this study enacted agency, as seen in the data, as a commitment to altering prevailing norms (Emirbayer & Mische, 1998). The level of agency that each teacher enacted varied as were the ways teachers were supported in their efforts. For some, such as Kate, the choice of research topic showed evidence of agency as she tried to understand the norms of her school, which were data driven, and the required use of data notebooks/walls. Kate also displayed agency in her topic selection because she questioned what she was asked to do and took action to investigate how this practice impacted her students. In phase two, Liza demonstrated agency as she shifted her research focus from her individual students to the entire first-grade team. Instead of stopping her research when the principal implemented switching for guided reading, Liza decided to look at how this change impacted the reading levels of all first graders at her school. Liza's need to understand if this change was for the best, propelled by her sense of perseverance, shaped her inquiry stance.

In summary, the above data highlight how agency can be used to better understand an inquiry stance by opening up how agency is defined in practice. The ways

teachers enacted agency varied, but they all engaged in some type of change whether that was within their individual classrooms or extended beyond.

This study contributes to the existing literature on inquiry stance by adding to understanding regarding constructs that encompass this stance. The data revealed additional descriptive characteristics within the constructs of reflection, pedagogical content knowledge, and agency, which assist in understanding the abstract nature of this stance and how it offers unique opportunities for teachers to learn in an ongoing process and engage research as a habit of mind.

### **Demonstrate That an Inquiry Stance is Dynamic and Fluid**

In addition to adding descriptive and concrete characteristics to understanding an inquiry stance, this study demonstrated that an inquiry stance is dynamic and fluid and it changes depending on the context. When a teacher enacts an inquiry stance, it is ever-changing. This is different than just conducting research by moving through a set of steps. Literature about inquiry stances suggests that such as stance is used to “describe the positions teachers and others who work together in inquiry communities take toward knowledge and its relationships to practice” (Cochran-Smith & Lytle, 1999). Thus, *stance* highlights how inquiry is a disposition or mode of being rather than a time-bounded project (Zuidema, 2012).

Although Liza was the only teacher to continue teacher research in the formal sense, aspects of an inquiry stance remained with the teachers after the class, and were evident when I checked in with them a year later. For example, Jane valued the information she gained from outside reading during the graduate class. This was still true

as she shared that she was seeking additional information about how kindergarten teachers can support early literacy. The year following the graduate class, Jane noticed that many of her students had not attended a preschool program. She used research to find additional resources to support early literacy learning, a topic specific to the students she was working with at her new school. The aspects of an inquiry stance which Jane valued, such as reading professional literature, remained with her although she was not able to complete research the following year due to having a baby. This shows how an inquiry stance is fluid and dynamic and changes based on particular situations. Other teachers such as Kate did not have any interest in continuing with teacher research, but she shared that she still valued the experience because it made her a stronger teacher (Email, July 18, 2014). Such findings are important because they open questions about the difficulty of an inquiry stance. Is it hard to sustain? Can teachers have an inquiry stance even if they are not doing research?

Regardless of whether the teachers continued researching in their classrooms, the data suggested that the experience conducting teacher research, even if only one time, opens teachers to the potential that they could be creators of their own understandings. This supports the notion that an inquiry stance is dynamic and fluid because it changes constantly. This is needed more than ever due to the focus on standards and accountability that “de-emphasizes local contexts, local knowledge and the role of teachers as decision makers” (Cochran-Smith & Lytle, 2009, p. 6). The analysis of the teachers in the graduate class, and Liza conducting research on her own, revealed the power that the teachers felt as they questioned school-wide initiatives (as was the case

with Donna and Kate), or pushed to implement new instructional practices they learned about in graduate school (as was the case with Liza and Donna), or wanted to be a better teacher (as was the case with Jane). These examples highlight how an inquiry stance is not a one-size-fits-all model, but rather that it is fluid and dynamic.

The findings from this study also revealed that inquiry stance is shaped by the context of a teacher's school and their support systems. Several of the teachers had full support from administrators (such as Tiffany and Kate), while others had to justify why they were doing research and at times "hide" their research (as was the case with Donna). The context of the environment in which the teachers worked shaped how dynamic and fluid their inquiry stances could be. The more support from administration, the more the teachers were able to enact and reveal their inquiry stances.

Teachers also varied in their openness and desire to share the findings of their research with others. These feelings changed throughout the study, which again provides evidence that an inquiry stance is dynamic and fluid. We know that because of the nation's focus on high-stakes testing, teachers have fewer opportunities to share their knowledge of teaching and learning (Richter et al., 2011). This study showed that teacher research provided opportunities for teachers to be professionals while at the same time fostering a desire to share with others. This was seen as teachers such as Liza took a leadership role by presenting her findings at a countywide workshop. Other teachers such as Tiffany and Kate shared their findings on a small scale with the teachers at their particular schools. The ebb and flow of an inquiry stance supported teachers' efforts to



share their research, moving them beyond thinking of research as a class project to part of who they now are as educators.

This study showed an inquiry stance positions teachers as problem solvers who navigated mandates and standardization of the curriculum in their own way. In addition, the data highlights that an inquiry stance illuminated the complexities of teaching and provided teachers a way of coping with the challenges that arose in their classrooms.

### **Limitations**

In addition to the methodological limitations that I discussed in Chapter III, this study is also limited in terms of practice and theory. I follow these limitations with a discussion on how they could be addressed through implications. In terms of participants, this study focused on only five teachers within a graduate class and followed only one teacher into her classroom the following year. In addition, the teachers who participated in this study all learned about teacher research the same way (i.e., within a graduate class), which may have impacted how they constructed and enacted an inquiry stance. Although the framework of an inquiry stance, consisting of reflection, pedagogical content knowledge, and agency addressed many of the questions, there are many left to address. In particular, what other constructs did teachers exhibit that were not part of this framework but perhaps equally important to their inquiry stance? For example, gender, age, and teaching experience were not a focus of this study, but others might see these constructs as part of an inquiry stance. Had additional teachers chosen to participate, more factors might have emerged pertaining to how an inquiry stance is constructed and enacted. In addition, because I only spent the second half of the school year observing

Liza, a longitudinal study over several years might allow additional aspects of her inquiry stance to emerge. These can be seen as limitations of this study or as opportunities for future research. I choose to see them as potential implications, which I share next.

### **Implications for Researchers**

This study suggests that more research is needed that explores how teachers construct and enact an inquiry stance and how that stance shapes literacy instruction or instruction in general. To do that, scholars need to further conceptualize an inquiry stance. Although the constructs of reflection, pedagogical content knowledge, and agency were evident in phases one and phase two of this study, what other constructs contribute to an inquiry stance, and do other teachers construct and enact those constructs in the same way? Second, educators would benefit from examining the ways teachers learn about research. Such information could provide insight into how inquiry stances develop over time and what factors contribute or prevent those stances from emerging.

Specifically, a longitudinal multiple case study approach could address the first suggestion. For example, a study that followed multiple teachers into their classrooms would provide insight as to what common constructs of an inquiry stance exist within and across teachers. This would also contribute to understanding the ways in which teachers engage in reflection, build pedagogical content knowledge, and enact agency within their various contexts. Although this was the initial goal of this study, the reality of finding teachers who want to continue research after graduate school is challenging. This leads to the second point, how educators would benefit from examining the ways teachers learn

about research, which may better help us understand how to support inquiry stances in their early stages of development.

To address the second question, it would be beneficial to investigate other ways that teachers learn about research such as online classes or through professional learning communities. By changing the context of how teachers learn about research, it may be easier to determine what factors do or do not play a role in fostering an inquiry stance. For example, an online class may not offer the type of support systems the graduate class did and thus the role of these support systems in early stages of developing an inquiry stance could be studied. Or, if researchers focused on the context of a professional learning community, how does being surrounded by teachers who know each other well and work in the same building shape inquiry stances?

Additional studies investigating an inquiry stance may utilize a different type of research, for example ethnography. Specifically, an ethnographic study that focuses on one classroom, where a teacher conducts research to further understand how an inquiry stance shapes not just one particular content area but rather all areas of instruction, would provide insight into the daily enactments of an inquiry stance. In addition, an ethnographic study would offer a distinctive perspective on how the culture of a school community shapes the construction and enactment of an inquiry stance.

As I continue to work in the fields of teacher education and teacher research, I plan to pursue a study similar to the one described above. In addition, I am interested in trying to further understand how teachers use noticing during literacy instruction and how these observations may shape their inquiry stance.

### **Implications for Practitioners**

Although teacher research provides a process—steps for students to take—it also opens opportunities for teachers to practice a new habit of mind that includes reflection, pedagogical content knowledge, and agency. This study highlights how engaging in teacher research allowed the participants an opportunity to make their knowledge about learning visible to themselves and others. As teachers began to think of inquiry as a habit of mind, they engaged in reflective and analytic thinking that encouraged them to critically examine their own teaching practices. The reoccurring theme of teacher research shaping literacy instruction through teachers' reflection, pedagogical content knowledge, and acts of agency during the graduate class and for Liza the following year, suggests that the lens of teacher research provides another way to consider what effective literacy teaching looks like that can take into account the school context and individual students. Implications for teacher education programs, schools, and administrators are examined next.

### **Implications for Teacher Education Programs**

The knowledge generated by the teachers in this study took the form of altered practices and/or re-envisioned curricula. This finding has implications for teacher education programs because an inquiry stance helps redefine teacher education (Cochran-Smith, 2003). Cochran-Smith (2003) argues that inquiry stance is a way for teachers of teachers to learn from and about the practice of teacher education

At the university level, there are ways to support pre-service and in-service teachers' literacy inquiries. The need for this was seen as more than half of the teachers

who enrolled in the graduate class chose to investigate an aspect of literacy instruction. This shows that in-service teachers have a desire to find ways to improve their teaching specifically related to literacy. This could be because literacy is complex. In their review of the literature, Baumann and Duffy (2001) found that teacher researchers investigated a variety of literacy topics (e.g., reading, writing, literature response, oral language). The variety of literacy topics researched in the graduate class supports their work, showing that teachers want and need to engage in inquiry in their literacy practices. What can teacher education programs do to further foster this desire to research literacy practices? One possible implication is embedding teacher research into undergraduate literacy methods courses so it becomes a systematic approach to effective teaching. A second implication is for teacher research courses at universities, which are often used as a capstone, to be offered earlier in the master's program so that teachers can have time to develop an inquiry stance with the support of the university. Next, I further explore these two implications for teacher education programs.

First, by embedding teacher research into undergraduate literacy courses the precedent is being set that teachers should question what they know and how they teach literacy (Cochran-Smith & Lytle, 2009). Education needs to be thought of as a lifelong process that occurs throughout teachers' careers. Teacher research is one way for teachers to continue learning after they leave their pre-service education programs (Cochran-Smith, 2003; Cochran-Smith & Lytle, 2009; Little & McLaughlin, 1993). By embedding teacher research into course work, educators learn that their roles are not limited to just teacher; rather, they can simultaneously be a learner, a teacher, and a

researcher, and there is no need to “have all the answers” (Cochran-Smith, 2003; Zuidema, 2012). The data from this study revealed the importance of this implication as numerous teachers emphasized that what a teacher does and who a teacher is was broadened because of conducting teacher research.

As teachers engage in inquiry, they may also become more reflective, experience building pedagogical content knowledge in a new way, and feel empowered, which may lead to agency. Pre-service teachers are already open to the idea that they are learning how to be a teacher and yet they have not been hit with the expectation that they should know it all. This brief window of time is the perfect opportunity to offer pre-service teachers another way to learn about teaching through teacher research.

Second, by offering the teacher research course earlier in a master’s program, teachers may have more opportunities to conduct research with the support of university faculty. Typically, the teacher research course is one of the last classes taken in the master’s program, and the research project is meant to act as a culminating event. Although delaying exposure to teacher research allows students to gain more information about education and research, many of the teachers in the study, such as Liza, shared that she wished she could have learned about research sooner (Interview 3). If the class was taken earlier and other classes embedded teacher research into their courses, teachers could potentially engage in multiple research opportunities over the course of several semesters. These inquiries could be focused on literacy instruction or other areas they want to investigate prior to graduating with their M.Ed. Although this may seem daunting for teachers who are working full time, if we hope that teachers will continue

researching after graduate school, we need to give them as many opportunities to be successful as possible. Restructuring graduate programs this way may help foster an inquiry stance because teachers would have multiple opportunities to engage in research with faculty support prior to trying it on their own.

These implications support embedding teacher research into literacy courses and exposing educators to teacher research earlier in their master's work. Teacher educators want to challenge teachers to ask questions about their practice and actually explore those questions. Educators can use teacher research to examine their literacy instruction and it can also increase teachers' knowledge about students' literacy (Cone, 1994; Lytle, 2000). By incorporating teacher research into more classes, we open the opportunity for pre-service and in-service teachers to move beyond seeing inquiry as a class project and to viewing it as a habit of mind.

### **Implications for Schools and Administrators**

Teacher education programs can only do so much to foster an inquiry stance. The real support must come from schools and administrators because that is where teachers spend most of their time. The teachers in phases one and two of the study all shared positive impacts of teacher research on their literacy instruction. This was highlighted in their reflection, pedagogical content knowledge, and agency. Such information adds to the scholarship in this field by further legitimizing teacher research and fostering the involvement of teachers in the decision-making process about effective literacy instruction. However, if there is not space for teachers to be decision makers within the context of their schools, they may decide that research is not worth the effort. What can

schools and administrators do to further foster this desire to research literacy practices? One possible implication is to allow choice within their required professional learning communities (PLCs). A second implication is to provide teachers with opportunities to share findings from their research.

First, allowing teachers to have choice within PLCs may encourage teachers to have better conversations about their literacy instruction (Cochran-Smith & Lytle, 2009). These PLCs should be shaped by inquiry so that teachers can inquire about something related to their teaching (Spillane & Miele, 2007). Often the PLCs that teachers participate in are structured and follow a set format. These PLCs may be tied to the school improvement plan, for example, and focus on the needs of the school but not the needs of particular teachers. It is important that these PLCs support teachers in being catalysts of change rather than perpetuate the status quo (Wood, 2007). Professional learning communities already bring teachers together for the purpose of studying and improving their educational practices, and are the perfect place to include teacher research (Sagor, 2009). In addition, these types of groups have proven to be helpful at engaging teachers in an inquiry stance that continually searches for significant questions, engages in problem solving, and seeks out alternative viewpoints from other practitioners (Cochran-Smith & Lytle, 2009). Professional learning communities focused on teacher research may also provide another choice to teacher evaluation.

Second, providing teachers with opportunities to share their research may further foster their inquiries into literacy practices. In phase one, teachers shared their research within the context of their school. Although this was strongly encouraged by the



graduate class, Liza continued with the momentum of wanting to share her findings with others during phase two. Administrators could support this initiative in several ways. First, by allowing time during staff or data team meetings for teachers to raise questions about their teaching and share how they found solutions. Second, administrators could support teachers by having them attend and present at local, state, and national conferences. When teachers return to their schools they could share what they learned with other teachers. Massey and Duffy (2004) report that the primary purpose for most teachers to investigate their instruction is to act or understand differently so that their students' learning is enhanced. If teachers had the opportunity to hear from other educators who are in the classroom just like them, the potential for improved literacy instruction is enormous.

In today's schools, due to abundant assessments, teachers continue to be positioned as recipients of other's knowledge, not creators of their own understandings (Cochran-Smith & Lytle, 2009). The implications I outline above are suggestions and hinge on the ability of administrators to find time for teachers to talk, question, and generate their own understanding of literacy instruction. If these steps are taken, teachers will have more opportunities to be professionals and share their expertise of teaching and learning (Richter et al., 2011).

### **Final Conclusions**

This case study examined how teachers embodied an inquiry stance and the role that stance had on their literacy instruction. The three constructs of reflection, pedagogical content knowledge, and agency were seen as part of teachers' inquiry

stances in phases one and two of the study although they manifested themselves in slightly different ways. For example, in phase two Liza demonstrated reflection differently than she did in phase one. In phase two, her reflections centered on reflecting about students and contemplating feedback. This reflection was driven by her desire to improve her teaching rather than meeting the requirements for a course. The three constructs were seen again as the teachers' literacy instruction was examined. In all cases the teachers' research impacted literacy instruction in some way.

As we work to further conceptualize what constitutes an inquiry stance, it is clear that the value of this stance is worthy of further investigation. The teachers in this study all took on aspects of an inquiry stance, which matters because as Kate notes, "it will make me a better teacher." In order to have teachers become change agents (Cochran-Smith, 2003), I, as a teacher educator, must be prepared to do the same. I hope to instill in all my students the drive to continue to grow and learn throughout their careers and I believe that supporting teachers as they construct and enact an inquiry stance is one way to accomplish this goal. An inquiry stance is a perspective toward teaching and learning (Cochran-Smith & Lytle, 1999; Wells, 1999) that fosters genuine curiosity as well as the desire to seek answers for questions about which teachers are most curious (Lamb et al., 2009). That is what makes inquiry stance powerful. This study has sustained my passion for teacher research and I am more eager than ever to see how the story continues, because this is certainly not the end.

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## APPENDIX A

### PHASE ONE, INTERVIEW PROTOCOL ONE

Name \_\_\_\_\_ Time \_\_\_\_\_ Location \_\_\_\_\_

Questions	Responses
1. How long have you been teaching? Have all those years been at your current school? What grade levels have you taught?	
2. Describe yourself as a teacher	
3. How would you explain teacher action research to your best friend? To your principal?	
4. Reflect on the progression of your “researcher identity” over the course of the semester.	
5. What has been the biggest obstacle, thus far, in your growth as a researcher?	
6. What has been the biggest opportunity, thus far, in your growth as a researcher?	
7. How has your definition of research evolved over the course of the semester?	
8. How do you think learning about action research in an ongoing PLC (Professional Learning Community) would have been different than learning about it in a graduate level class?	
9. Describe how you plan to implement your research.	

## APPENDIX B

### PHASE ONE, INTERVIEW PROTOCOL TWO

Name \_\_\_\_\_ Time \_\_\_\_\_ Location \_\_\_\_\_

Questions	Responses
1. Bring an artifact from your research. Talk about that artifact. Why did you choose it? How does it represent your research? Your researcher identity? Your development as a literacy teacher?	
2. What experiences from your own life do you feel have influenced your research? Your idea of research?	
3. Do you see any transfer from your research to your practice? What about from your research to your knowledge base?	
4. What story can you share about a moment in your research journey?	
5. How would you describe yourself as a literacy teacher?	
6. Describe your literacy knowledge.	
7. If you continue with this study next year and I come into your classroom for observations, what role would you want me to play?	

## APPENDIX C

### PHASE ONE, INTERVIEW PROTOCOL THREE

Name \_\_\_\_\_ Time \_\_\_\_\_ Location \_\_\_\_\_

Questions	Responses
1. Talk about your experience conducting research this year.	
2. What experiences from class stand out the most to you and why?	
3. Do you see any transfer from your research to your practice? What about from your research to your knowledge base?	
4. What story can you share about a moment in your research journey?	
5. How would you describe yourself as a literacy teacher?	
6. Describe any shifts in your literacy knowledge as result of conducting research.	
7. Anything else you want to share?	

## APPENDIX D

### PHASE TWO, INTERVIEW PROTOCOL ONE

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Place: \_\_\_\_\_

Questions	Responses
1. Describe your school. What is the culture of your school like? Tell me about the students who attend your school.	
2. What was the topic of your research last year? Do you see any transfer from your research to your literacy practice? What about from your research to your understanding of literacy practices?	
3. How would you describe your self as a Teacher Researcher? Tell me how you implemented TR in the past. Can you share a research memory from last year?	
4. Which of the steps of conducting teacher research to do find the most beneficial and why? The least? Why?	
5. What about conducting research helps you reflect? What does that reflection look like? What does it mean to you to be reflective?	
6. How does Teacher Research provide you an opportunity to learn about your teaching practices? In contrast, how did you use to find out about your teaching practices?	
7. Have you shared your research with any of your colleagues and/or administrators? If so, what was their response? Who do you think you might share your research this year with? Why?	
8. How do you anticipate conducting research this year, without the support of a university class, may be different and/or the same as last year when you completed your first teacher research project?	
9. Is there anything else that you would like to share?	

## APPENDIX E

### PHASE TWO, INTERVIEW PROTOCOL TWO

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Place: \_\_\_\_\_

Questions	Responses
1. Where are you in the process of your inquiry? How is it going? How is it different or similar to your research experience last year?	
2. Do you see any transfer from your research to your literacy instruction? What about from your research to your understanding of literacy instruction?	
4. What are you finding most beneficial from your research right now? Least? Why?	
5. Tell me about the artifact you brought today from your research.	
6. What are you learning about the topic of your research? Are you seeking outside sources for information?	
7. Have you shared your research with any of your colleagues and/or administrators? If so, what was their response?	
8. Is there anything else that you would like to share?	



## APPENDIX F

### PHASE TWO, INTERVIEW PROTOCOL THREE

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Place: \_\_\_\_\_

Questions	Responses
1. How does it feel to be done with your second teacher research inquiry? Describe the experience of conducting research this year compared to last? What role did the context of your school play in your research (if any)?	
2. Do you see any transfer from your research to your literacy instruction? What about from your research to your understanding of literacy instruction?	
3. How would you describe your self as a Teacher Researcher now? Can you share a research memory from this year? Would you describe that memory as positive or negative? Why?	
4. Which of the steps of conducting teacher research to do find the most beneficial and why? Which the least? Why?	
5. Talk to me about your level of reflection with your research this year. What did it look like? Does anything about conducting research help you reflect?	
6. What did you learn about your literacy instruction? Did this experience build your knowledge of content or pedagogy? Why or why not?	
7. Have you shared your research with any of your colleagues and/or administrators? If so, what was their response?	
8. Has your experience with research inspired you to take any action related to your research topic? Looking ahead to next year do you anticipate your research impacting your teaching next year? If so, how? Do you anticipate that you will continue with teacher research next school year? Why or why not?	
9. Is there anything else that you would like to share?	

**APPENDIX G**  
**PHASE TWO, OBSERVATION PROTOCOL**

**Reflection**

When teachers analyzed decisions they made about practice

When teachers related theory (something they read from class, PD) to practice

**Pedagogical Content Knowledge**

When teachers illustrated increased depth of knowledge about both the content and pedagogy of their practices

Instances when after reading relevant literature when teachers responded about pedagogy or content

**Agency**

When teachers took an action, or talked about wanting to take action, based on the findings of their research

When teachers mentioned why they took action

